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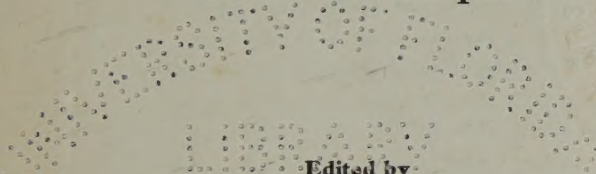
**VOL. III, No. 4**

**JULY, 1924**

**BULLETIN**  
**OF THE**  
**Department of Elementary**  
**School Principals**

**THE THIRD YEARBOOK**

**The Status and Professional**  
**Activities of the Elementary**  
**School Principal**



**Edited by**  
**ARTHUR S. GIST**

**PUBLISHED QUARTERLY BY THE**  
**DEPARTMENT OF ELEMENTARY SCHOOL PRINCIPALS**  
**of the National Education Association of the United States**  
**1201 SIXTEENTH STREET NORTHWEST, WASHINGTON, D. C.**

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## BULLETIN

of the

### DEPARTMENT OF ELEMENTARY SCHOOL PRINCIPALS

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Executive and Editorial Offices, 1201 Sixteenth Street Northwest, Washington, D. C.

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## PREFACE

The Yearbooks of the Department of Elementary School Principals of the National Education Association indicate quite clearly the vision and professional activities of its members. This is in line with the professional alertness of all educators at the present time and shows an intelligent and determined effort to set up high standards of efficiency from within.

The topic of the first Yearbook was *The Technique of Supervision* and that of the second Yearbook, *The Problem of the Elementary School Principal in the Light of the Testing Movement*. In the third Yearbook an attempt is made to cover in a limited manner some of the more important professional activities of the elementary school principal's work and to do it in as practical, suggestive, and helpful way as possible. With this in mind, principals actually in the work have contributed the articles, and they have shown quite definitely how many of their functions as professional leaders are being performed.

The members of this Department are indebted to university professors of education, to city superintendents, and to elementary school principals for assistance given the editor in putting him in touch with contributors, and in definitely indicating their interests and research problems. The Research Division at the National Education Association Headquarters gave valuable and timely assistance in certain lines of research and investigation, and we are grateful to them. We are also indebted to the Division of Publications for handling the printing of the Yearbook.

It is hoped that this volume will be of real service to elementary school principals, to educators in general, and to students of elementary education; that it will take its place with the two previous Yearbooks in pointing the way to greater efficiency as professional leaders.

ARTHUR S. GIST,

*Editor of the Third Yearbook,  
B. F. Day School, Seattle, Washington.*





## THE CHALLENGE

It is with pride that we present this the Third Yearbook of the Department of Elementary School Principals.

Three years ago we were unorganized, hence not recognized, and without a literature directly bearing on the work of the Elementary School Principal. We are now an organized and recognized group of enthusiastic, hard-working, forward-looking, progressive, capable, and necessary co-workers.

No other group has made such great progress in proving its usefulness and efficiency. We have received recognition locally and nationally that is very gratifying and almost staggering in the responsibility that it is placing upon us as an organization and as individual principals. For in the last analysis it is what we are able to do in the way of leading our teachers, our pupils, our communities, that is the real test of our capability, effectiveness, and efficiency. This is the real measure of our worth.

A great organization, having a large membership, holding successful meetings with excellent programs and discussions, producing Yearbooks that are of far-reaching influence, is entirely worth while. But the elementary school principal must also function as an individual principal in one school and reach the teacher that needs assistance and encouragement and the individual pupil that needs help and encouragement, if he does the work of a real live principal.

The recognition of the elementary school principal is now just starting, and it is our duty and privilege to see that we are ready to lead in each advancing step that is to be made in elementary education.

We are making commendable progress in developing a professional literature on the work of the elementary school principal. Our three Yearbooks are outstanding productions and are epoch-making. The Department Bulletins are valuable and much appreciated; principals are contributing more and more to other professional publications, making investigations and writing books.

Because of this professional growth there has arisen such a demand for literature on this subject that doctors of education are writing books and making investigations on subjects that have to do with the elementary school principal. Courses are now being given in teachers' colleges all over the country for the

elementary school principal, and no other literature is so much sought by professors of education giving these courses as is the literature that is being put out by the Department of Elementary School Principals.

We think the encouragement that is being given, the literature that is being developed, the magnitude of the work that is to be done is sufficient to hearten and at the same time challenge each one of us first to do his own work in an efficient manner, and second to be active in our National organization, so as to be helpful and get help. "No one liveth to himself."

We are the largest group of professionally-minded people engaged in the school business. There are between fifty and sixty thousand elementary school principals in the United States. Are you contributing your part?

The Department of Elementary School Principals was born of a necessity. It met a real need, and that accounts for its immediate and continued success. It will continue to grow so long as it progressively meets that felt need. Its organizers had a great ideal in mind, and we are keeping that ideal constantly before us. That ideal is the betterment of elementary school education. A service to all the boys and all the girls of our great country!

W. T. LONGSHORE, *President.*

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## SECTION I

### THE EVOLUTION OF THE PRINCIPALSHIP



## CHAPTER I

### THE EVOLUTION OF THE PRINCIPALSHIP

ARTHUR S. GIST

*Principal, B. F. Day School, Seattle, Washington*

A STUDY OF THE ORIGIN of our public schools shows that at one time little attention was paid to efficient teaching and to expert supervision as contrasted with our present standards. The teaching was largely religious in character and in the hands of the ministry. The supervision consisted mainly of lay inspection and was naturally cursory in character. Possibly the first official recognition of supervision was in Massachusetts in 1789, when a law was passed to employ a committee to look after the schools. It was evidently the purpose to do more than merely employ and examine teachers. In 1826 this practice was made obligatory.

The principalship, as we now think of the office, was apparently not included in the original plans. As the enrolment of the school increased to the extent that two or more teachers were required, one was often designated as head teacher, whose duties seemed to have been disciplinary. As the schools increased in size, and reports mainly of a statistical nature were required, this head teacher was asked to do much of this clerical work.

Later, as the size of the schools increased still more in the congested districts, the head teacher was often designated as a chief teacher or the principal. This office then took on the managerial functions, and the person in charge was frequently relieved a part of the time for administrative duties.

Within the last few years, the principals of the larger schools have been relieved of all responsibility of teaching any particular room. With this responsibility lessened, and the demand for greater efficiency in teaching, the principal has been required to assume an increasing amount of the responsibility for a high type of instruction in his school. We therefore now have a new duty for this position, that of the supervision and improvement of instruction.

#### PRESENT TENDENCIES

*Duties as seen by educational experts*—Dr. Briggs<sup>1</sup> outlines the major duties of the high-school principal as follows: (1)

---

<sup>1</sup> Briggs, Thomas H. The Professionally Trained Principal, *School Review*, 30: 653-662, November, 1922.



Administrative; (2) direction of the social life of the school; (3) improvement of instruction. F. W. Johnson,<sup>1</sup> in enumerating the duties of the principals, states that the improvement of instruction is the most important duty. Dr. Cubberley<sup>2</sup> outlines the duties as follows: (1) Organization duties; (2) administrative duties; (3) supervisory duties, and (4) social duties. Quoting further, he states, "The supervision of instruction, that the education of children may proceed under better conditions and may be more effective in results, is the prime purpose of freeing the principal from teaching, it is the end and goal toward which the organization and administration of the school should tend. All other work is in a sense preliminary to this larger function. The broader professional knowledge and insight of the principal must find expression in the daily work of the teachers and pupils if his largest usefulness as a principal is to be rendered."

The Philadelphia Survey<sup>3</sup> outlines the duties of the principal as follows: (1) Business administration; (2) educational administration; (3) active supervision. W. C. Reavis<sup>4</sup> indicates the duties as follows: (1) Managerial duties; (2) professional duties, and (3) social duties. Dr. Nutt<sup>5</sup> states that in supervision the goal is the improvement of teachers in service and the securing of efficient teaching results. Mr. McClure<sup>6</sup> in a recent study found the following results:

TABLE 1—RELATIVE IMPORTANCE OF CERTAIN FUNCTIONS UPON THE BASIS OF THE PER CENT OF TIME WHICH SUPERINTENDENTS EXPECT THE PRINCIPAL TO DEVOTE TO EACH

Rank of Importance	Function	Median Percentage	Range
1	Supervision	50	40-80
2	Administration	20	5-60
3	Clerical work	10	0-25

<sup>1</sup> Johnson, F. W. The Supervision of Instruction, *School Review*, 30: 742-755, December, 1922.

<sup>2</sup> Cubberley, E. P. The Principal and His School, Houghton-Mifflin Co., 1923.

<sup>3</sup> Report of the Survey of the Public Schools of Philadelphia, Book 2, p. 80.

<sup>4</sup> Reavis, W. C. The Duties of the Supervising Principal, *Elementary School Journal*, 19: 279-284, December, 1918.

<sup>5</sup> Nutt, H. W. The Supervision of Instruction, p. 29, Houghton-Mifflin Co., 1920.

<sup>6</sup> McClure, Worth. The Functions of the Elementary School Principal *The Elementary School Journal*, 21: 500-514, March, 1921.

TABLE 2—RELATIVE IMPORTANCE OF THE FUNCTIONS IN PRACTICE UPON THE BASIS OF TIME EMPHASIS BY FORTY-THREE SEATTLE ELEMENTARY SCHOOL PRINCIPALS

Rank of Importance	Function	Median Number minutes per week	Range
1	Administration	882.5	300-2,000
2	Supervision of teaching	650	120-1,610
3	Clerical work	510	150-980

TABLE 3—RELATIVE IMPORTANCE OF THE FUNCTIONS IN ACTUAL PRACTICE, AS OBSERVED BY THIRTEEN UNIVERSITY PROFESSORS

Rank of Importance	Function	Median Weighting	Total Weighting	Range
1	Administration	30	452	27-50
2	Clerical work	30	375	20-40
3	Supervision of teaching	17	217	5-30
4	Community leadership	10	126	5-25
5	Professional study and growth	9	88	0-20

## SELECTION AND TRAINING OF THE PRINCIPAL

With this added responsibility of duties of a wholly different character comes new demands in the selection, training, and efficiency of the principal. Success in classroom instruction was at one time taken as the sole basis for selection to this position, but now training and ability of a different type are required.

TABLE 4—NUMBER OF COURSES ON THE ELEMENTARY SCHOOL PRINCIPALSHIP OFFERED IN FIVE INSTITUTIONS FOR THE PAST TEN YEARS

Academic year	Number of administration courses on the principalship					Number of courses on supervision or improvement of instruction on the principalship				
	Univ. of Calif.	Univ. of Chicago	Col. <sup>1</sup> Univ.	Iowa <sup>2</sup> State Teach.	Stan. <sup>3</sup> Univ.	Univ. of Calif.	Univ. of Chicago	Col. <sup>1</sup> Univ.	Iowa <sup>2</sup> State Teach.	Stan. <sup>3</sup> Univ.
1913-1914	.....	2	2	3	.....	.....	2	.....	13	.....
1914-1915	.....	2	2	3	.....	.....	2	.....	13	.....
1915-1916	1	2	2	3	.....	.....	3	.....	13	.....
1916-1917	1	3	2	3	.....	1	3	.....	13	.....
1917-1918	1	3	2	4	.....	2	3	.....	13	.....
1918-1919	1	3	2	4	.....	2	3	.....	13	.....
1919-1920	.....	4	2	5	1	3	3	.....	14	1
1920-1921	2	4	2	4	1	3	3	.....	15	1
1921-1922	2	4	2	4	1	3	3	.....	15	1
1922-1923	2	4	2	6	1	3	3	.....	15	1
1923-1924	2	4	3	6	1	5	3	2	16	1

<sup>1</sup> Professor M. B. Hillegas, replying to the questionnaire for Dean Russell, writes: "For the entire period beginning 1913-1914, Columbia University has had a course in administration that has considered matters relating to the principal's work. Attendance in this course has not been limited to principals, however. Superintendents and supervisors have also been

admitted. In a measure, the same is true in reference to courses in supervision, so I have not stated it on the blank because I believe what you want is courses specifically for the principal. . . .

"One feature here may be of interest to you, that is the earlier absence of those who were interested in such courses. It required courage on our part to make the announcement of a summer-school course for principals in 1921-22. In fact, we did not at that time have confidence that principals alone would fill such a course, so we included 'supervisors' in the title of the course, though it was designed specifically for principals. Last summer that course numbered some eighty-five persons, and it has come to be a fixture in our summer-school offerings. . . .

"This present year there are enrolled in the field of elementary education some two hundred people. In this field we have the persons who are preparing for principalships. There are ten such students, but of this ten only two, as far as I am able to determine, have had experience as principals and are here for advanced training. The other eight are looking forward to the principalship. As nearly as I can determine, conditions are such that school principals cannot easily obtain leave of absence, and they are therefore obtaining their training in summer-school work. Those who are preparing to become principals, however, are endeavoring to secure very definite training."

<sup>2</sup> These are number of times subjects have been given during the year, not the number of sections of classes.

<sup>3</sup> Does not include high school principal, on which another course is offered.

A recent investigation of the courses for the principal was made for this Yearbook. This shows rather conclusively the recognition of this new demand by the training institutions.

Further evidence of this new demand is the recent enactment of a law in California which requires a school executive to hold a special administrator's certificate, for which training courses are to be provided in the institutions of that State.

### QUALIFICATIONS FOR THE PRINCIPALSHIP

Following is the result of a special inquiry sent to city superintendents and professors of education, to ascertain their conception of the necessary qualifications for the principalship. The most important items to be considered in the selection of elementary school principals as indicated by fifteen superintendents:<sup>1</sup>

Scholarship and Training:	Number of times mentioned
Professional preparation.....	5
General scholarship.....	3
Broad professional training and special study in preparation for the work of a principal of an elementary school.....	2
Recent professional preparation.....	1
Scientific professional insight and training.....	1

<sup>1</sup> Because of the great divergence of opinions expressed, no attempt was made to rank them as to first, second, and third choice.

**Experience:**

Experience in work.....	4
Successful experience as a teacher or as an assistant principal..	1
Experience in managing a school and as a teacher.....	1

**Personality and Personal Characteristics:**

Personality .....	6
Leadership .....	5
Administrative ability and aptitude, including ability to supervise and inspire teachers and pupils.....	3
Professional attitude and outlook or merit as a constructive, contributing member of the system.....	3
Evidence of continuous professional growth or ability to make pupils, teachers, and self grow.....	3
Ethical standards or ideals of professional service.....	2
Character and moral courage.....	2
Sympathy and fairmindedness.....	2
Professional ability.....	1
Thoroughness .....	1
Ability to get along with teachers and patrons.....	1
Power to organize and plan to save time and work effectively..	1
Character qualities, social attitudes, evincing human interests in children and the community.....	1
Judgment .....	1
Vision .....	1
Sense of humor.....	1
Physical vigor.....	1

**THE MOST IMPORTANT ITEMS EIGHT COLLEGE PROFESSORS CONSIDER  
NECESSARY IN THE SELECTION OF ELEMENTARY  
SCHOOL PRINCIPALS**

	Number of times mentioned
Scholarship and breadth of education.....	6
Professional training <sup>1</sup> .....	5
Supervisory ability, thorough training in improving instruction through supervision, <i>i. e.</i> , building and classroom management..	3
Ability to organize and inspire teachers or ability to manage others and infuse professional spirit.....	2
Genuine professional interest.....	2
Administrative ability or ability to coöperate in developing the general school program.....	2
Personal character, personality, and manner.....	2
Personal leadership in and out of school.....	1
Amount and kind of experience.....	2
Sympathy with pupils.....	1
Good common sense.....	1
Well-balanced, kindly temperament.....	1

The responsibility now being placed upon the principal for securing a high type of instruction is further evidenced by an examination of the rating sheets used in progressive school

<sup>1</sup> One writer urges that "professional training" should include a proper study of the subject matter of the curriculum.



systems, to rate the efficiency of the principals. These show conclusively that the supervisory function is of primary importance. One city—Minneapolis—rates the principals on the basis of 450 points, considering supervision of most importance—150 points.

In another city—Seattle—the superintendent's staff is asked nine questions regarding the principals, among which are these questions, "Is he improving himself professionally?" "Does he keep his corps professionally alert?" "Do teachers improve under his leadership?" There seems to be some difference of opinion as to the wisdom of showing a principal his rating. Some cities, however, feel that these rating sheets, if properly made out, showing a composite rating of the superintendent and the assistant superintendents, will aid the principal in his professional plans and development.

### ORGANIZATIONS OF PRINCIPALS' ASSOCIATIONS

As the principalship is developing into a highly professional and technical position, organizations to further the professional growth of the principals are being very generally organized. In practically all of the progressive cities organizations now exist, and the following shows which State educational associations have elementary school principals' sections:

### INVESTIGATION OF ELEMENTARY SCHOOL PRINCIPALS' SECTIONS IN STATE EDUCATION ASSOCIATIONS

*Answers from 38 secretaries*—1. Does your State Education Association have an Elementary School Principals' Section?

#### Summary of Answers:

		Date of organization
Yes .....	13	
Alabama .....		1923
California (Northern Section of State Teachers' Association) .....		1923
Kansas (has an Elementary School Principals' Round Table as part of each annual session of the State Teachers' Association) .....		At least 10 years ago.
Michigan .....		Number of years.
Missouri .....		1921
Minnesota .....		Ten years ago.
Mississippi .....		1922
New Jersey .....		Years ago.
Oklahoma .....		
Pennsylvania (has only a Department of Supervising Principals) .....		1918
Texas .....	1921	or 1922.
Virginia .....		1920
Washington .....		1920
No .....	25	

NOTE.—These States include:

Arizona	Iowa	Missouri	South Dakota
Arkansas	Kentucky	Nebraska	Tennessee
Colorado	Louisiana	New Mexico	Vermont
Connecticut	Maine	North Carolina	West Virginia
Delaware	Maryland	Ohio	Wyoming
Florida	Massachusetts	Rhode Island	
Illinois	Montana	South Carolina	

An examination of the programs of the local and State organizations shows rather clearly that these organizations have professional study as a basis for their existence.

### STABILIZING THE PRINCIPALSHIP

Because of the large number of efficient school principals who are constantly leaving their positions because of promotions, many educators feel that this high type of ability should be kept in elementary school work because of the opportunity for real service in this field. Inquiry with this in mind was directed to certain city superintendents and University professors of education. The tabulated returns of this inquiry follow:

#### STABILITY OF THE ELEMENTARY PRINCIPALSHIP

*Answers from 15 city school superintendents*<sup>1</sup>—I. Method of holding principals whose ability and success is meritorious. (Please answer "yes" or "no" to each question and then discuss your answer.)

1. In your judgment, will an adequate salary schedule tend to hold them?

Summary of answers:

Yes ..... 14

No, not of itself but it is a factor..... 1

NOTE.—Among the qualifying statements were the following: "Yes, with the emphasis on 'tend.' I do not believe an adequate salary alone will hold principals of ability, but certainly an adequate salary is an important factor."

- a. What should be the maximum salary?

Summary of answers:

\$4000 to \$5000..... 1

\$4000 ..... 3

NOTE.—One superintendent qualified his answer as follows: "Depends upon enrolment of school; large school perhaps \$4000."

\$3750 to \$4750..... 1

NOTE.—The above was given as the actual salary paid elementary school principals in New York City in elementary schools having 25 to 48 classes.

<sup>1</sup>J. H. Beveridge, Omaha, Neb.; Nicholas Bauer, New Orleans, La.; Jeremiah E. Burke, Boston, Mass.; R. J. Condon, Cincinnati, Ohio; Susan M. Dorsey, Los Angeles, Calif.; J. M. Gwinn, San Francisco, Calif.; F. M. Hunter, Oakland, Calif.; P. A. Mortenson, Chicago, Ill.; Jesse H. Newlon, Denver, Colo.; Eugene A. Nifencker (answering for William L. Ettinger), New York City; O. C. Pratt, Spokane, Wash.; J. W. Studebaker, Des Moines, Iowa; W. F. Webster, Minneapolis, Minn.; H. B. Wilson, Berkeley, Calif.

- |   |   |
|---|---|
| \$3600 .....  | 1 |
| \$3000 to \$4500, depending on qualifications, efficiency, years in the position, and size of school..... | 1 |
| \$3000 and up, depending on size of school, cost of living in city where principal lives, etc.....        | 1 |
| \$3000 .....  | 1 |
| "Higher than the public is prepared to pay at this time. All administrative salaries are too low".....    | 1 |
| "Varies with local conditions".....   | 2 |
| NOTE.—One superintendent added: "The higher the better."  |   |
| "Depends upon many factors, especially cost of living".....   | 1 |
2. In your judgment, will an occasional promotion tend to act as a sufficient incentive?
- Summary of Superintendents' answers:
- |   |   |
|---|---|
| "Yes" .....   | 6 |
| "It will help".....   | 2 |
| "All is relative; for some, Yes; for the best, No".....   | 2 |
| "Promotion should carry with it increased salary and if so will act as a sufficient incentive"..... | 2 |
| "Doubtful" .....  | 1 |
| "It will act as an incentive".....  | 1 |
| "No" .....  | 1 |
- NOTE.—Among the qualifying statements were the following:
- "Promotion may not be a sufficient incentive to hold all men in the elementary schools, but it will have a tendency to help."
- "Best incentive is mental promotion."
- "Yes, if the person promoted deserves promotion from the standpoint of professional training, demonstrated capacity for leadership, and professional ethics."
- "All salary schedules should provide an authentic increase based on years of service and size of schools. Promotions from one class to another should be possible."
- "No, since there are a limited number of principalships in a city, continued promotion is not possible. The man who is successful eventually reaches the top. As I understand it, we are seeking to find ways of holding the successful man at the top. If it applies to younger men just winning their spurs, increase in salary and recognition by promotion are, in my judgment, adequate, but the nearer the top the successful man gets the less chance there is to make these two factors operate."
3. Do you believe that the right type of elementary school principal may be sufficiently qualified for promotion to a senior high school principalship even though he has had no experience as a high school principal?
- Summary of City Superintendents' answers:
- |                                       |   |
|---------------------------------------|---|
| "Yes" .....                           | 9 |
| "Occasionally" .....                  | 2 |
| "Very seldom properly qualified"..... | 1 |
| "No" .....                            | 2 |
- NOTE.—Among the qualifying statements were the following:
- "Yes, if he has had sufficient preparation and has been looking forward and preparing for such a position."
- "Yes, the best type. Will not find many."
- "Occasionally, if he has made special preparation for high school principalship."
- "Yes; do not like idea that this would be a promotion."
- "Yes, indeed; nothing will more quickly improve the senior high schools."

"Yes, if in addition to elementary school principalship experience he has made a study of the secondary field."

"High school promotions should in the main be filled by promotion of high school teachers. Otherwise what outlook have they?"

"Quite a number of our senior high school principals have been selected from among principals of elementary schools. Elementary school principals should have some experience in high schools either as teacher or supervisor in order to qualify for selection as a high-school principal.

"No; I regard the work of the senior high school as distinct from that of the intermediate or junior high school, and both as distinct from that of the elementary school. I believe he should have experience in and be trained for the particular field in which he is to serve as head and leader.

A. Within the last ten years how many high school principals have been appointed (for the first time) upon your recommendation?

B. How many of these newly appointed high school principals were promoted from elementary principalships?

TABLE 6—NUMBER OF ELEMENTARY SCHOOL PRINCIPALS PROMOTED TO HIGH SCHOOL PRINCIPALSHIPS

City	Number of High School Principals Appointed	Number Promoted from Elementary Principalships
Berkeley, California.....	1	0
Boston Massachusetts.....	5	0
Chicago, Illinois.....	2	1
Cincinnati, Ohio.....	7	2 <sup>1</sup>
Denver, Colorado.....	2	0
Des Moines, Iowa.....	4	0
Detroit, Michigan.....	6	0
Los Angeles, California.....	16 <sup>2</sup>	6
Minneapolis, Minnesota.....	8 <sup>2</sup>	6
New Orleans, Louisiana.....	0	0
New York, New York.....	23	6
Oakland, California.....	3	1
Omaha, Nebraska.....	6	0
San Francisco, California.....	0	0
Spokane, Washington.....	3	0

<sup>1</sup> The others, with one exception, were promoted from assistant principal to principal.

<sup>2</sup> These include junior high-school principalships.

### STABILIZING THE ELEMENTARY PRINCIPALSHIP

*Answers from 8 professors in outstanding schools of education*<sup>1</sup>—

I. Method of holding principals whose ability and success is meritorious.

<sup>1</sup> H. C. Morrison, University of Chicago, Chicago, Ill.; F. E. Bolton, Dean, Department of Education, University of Washington, Seattle, Wash.; F. C. Ayer, Education Department, University of Washington, Seattle, Wash.; James F. Hosc, Teachers College, Columbia University, New York; Ernest Horn, University of Iowa, Iowa City, Iowa; Clifford Woody, University of Michigan, Ann Arbor, Mich.; Ellwood P. Cubberley, Stanford University, Calif.; Paul W. Terry, School of Education, University of Washington, Seattle, Wash.



(Please answer "yes" or "no" to each question and then discuss your answer.)

1. In your judgment, will an adequate salary schedule tend to hold them?  
Summary of answers:

"Yes" .....	6
"Not necessary—it would help".....	1
"Partly—work needs to be dignified in responsibility and professional character" .....	1

NOTE.—Among the qualifying statements given were the following:

"Salary is one of the most important factors in holding principal."

"Yes, if other professional opportunities are given."

"Yes, it will help, but it will not keep those who have ambition to become superintendents. As long as higher salaries are paid any group of teachers, principals will strive for them."

"Yes, it will tend to hold anybody to anything almost. As things are now, so many elementary principals want to be high school principals just to get more money."

- a. What should be the maximum salary?

Summary of answers:

	Number of times mentioned
\$6000 .....	1
\$4500 to \$5000.....	1
\$4000 to \$5000.....	1
"Who knows?" .....	1

NOTE.—Among the qualifying statements given were the following:

"The maximum salary will depend upon the size of the school and city, but should be equal to that of a high-school principal in a school of the same enrolment."

"The same as for high-school principals in the same city."

"So long as the elementary school position is held to be inferior, the best will seek to leave it."

2. In your judgment, will an occasional promotion tend to act as a sufficient incentive?

Summary of answers:

"No" .....	4
"Yes" .....	2
"Will help" .....	1
"In some, yes; in others, no".....	1

NOTE.—Among the qualifying statements given were the following:

"Make the elementary school principal a real professional leader. Give him power of initiative and not limit him to a clerkship executing mandates from above. There ought to be great differences among elementary schools due to the above. Avoid dead uniformity. Reward."

"Yes, depends on the frequency of the occasion. If promotion either within or out of the system seems likely, I think it will."

"Yes, but not necessary if other conditions are right."

"No, the funds available may not warrant an annual increase, but principals must have it to be satisfied. Of course, merit should determine increase."

"No, appreciation of his work by superintendent and others will also help—and recognition by professional associates."

3. Do you believe that the right type of elementary school principal may be sufficiently qualified for promotion to a senior high school principalship, even though he has had no experience as a high school principal?

Summary of answers:

"Yes" .....	4
"No" .....	3

NOTE.—Among the qualifying statements given were the following:

"Obviously, yes. Best source of high school principals."

"Yes, but I think there are few of the right type, and, in general, it is not a practice to be encouraged. I prefer to dignify and stabilize the elementary principalship instead."

"No, but as well qualified as is the high school principal to become a superintendent."

"No, not as a rule."

"He should have some experience of the high school before becoming its head."

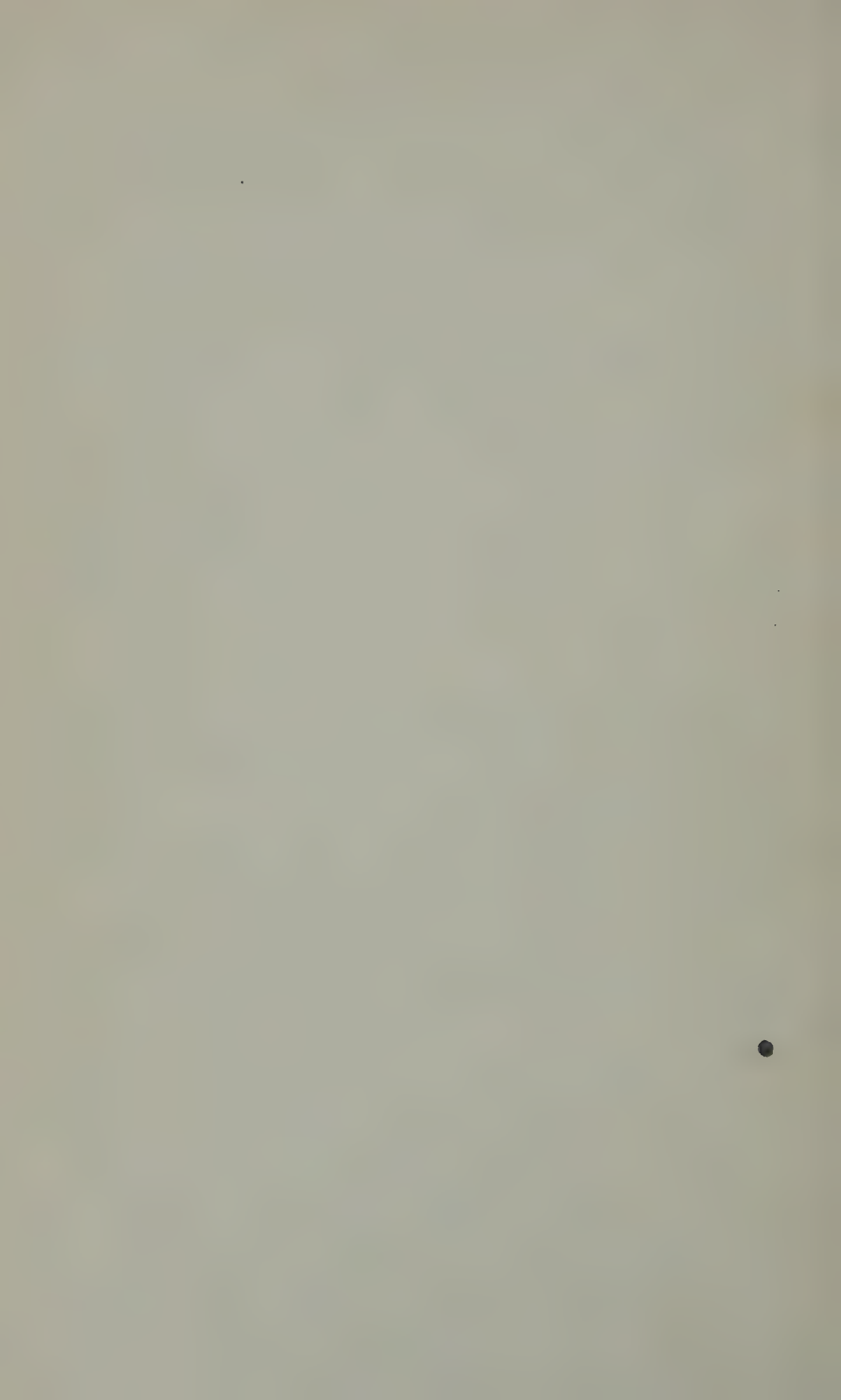
Another means of stabilizing the elementary school principalship would be to work out some form of single salary schedules for principals. In fact, it has been predicted that "within a twelvemonth we shall hear of cities that have adopted what will be in effect single salary schedules for the principals of their schools."<sup>1</sup>

An examination of professional literature shows a considerable amount of professional literature at the present time written about the principalship and by the principal. Further examination of professional journals show that elementary school principals are members of the editorial staffs.

It is with considerable professional pride that we see the elementary school principalship developing as a real professional position, along with the other fields in education.<sup>2</sup>

<sup>1</sup> Editorial in the *Journal of Educational Method* for April, 1924.

<sup>2</sup> The Department of Elementary School Principals is indebted to the Division of Research of the National Education Association for valuable assistance in sending out questionnaires and in tabulating many of the returns.



SECTION II  
THE PROFESSIONAL ASPECT  
PART I  
THE PRINCIPAL HIMSELF





## CHAPTER II

### THE PRINCIPAL AND HIS PROFESSIONAL GROWTH

E. W. COBER

*Principal, Holmes School, Pittsburgh, Pennsylvania*

IN THE discussion of this question, we shall restrict the term "principal" to one who has charge of the elementary grades, or what is ordinarily thought of as the eight grades, including the kindergarten. This individual school, with its corps of teachers, constitutes the unit in local management of which the principal is the official head. In large cities he may be thought of as the superintendent of everything pertaining to his school, but receiving inspiration and guidance from his superior, the superintendent of the schools of the city.

The term "professional growth" will refer to anything with which the principal shall identify himself directly, which means not only the supervision of the children entrusted to his care, but the community life, and, therefore, the well-being of the boys and girls outside of school hours.

*The need of professional growth*—In no vocation or profession at the present time is there a satisfaction of up-to-dateness with what was considered "just right" twenty-five or even ten years ago. Industrial plants have scrapped much of their equipment wholesale. Business houses have installed new methods or devices to meet the more exacting demands. The farmer who would attempt to operate his farm with the same equipment and plans as that of his father would at present be unable to pay his taxes. We must not lose sight of the fact that the organization of a modern school is in no way comparable to a school in which our fathers and mothers were trained. The administration of a modern school has numerous exacting duties which involve administrative and executive ability of a high order if our duty to the taxpayer is to be fulfilled, to say nothing of the impress which we can make on the "soul stuff" in the form of boys and girls in which we deal each day.

In a large city the form of organization is determined largely by the superintendent of schools, but the "wide-awake" principal is given sufficient liberty to organize his school so as to meet the needs of his community. Here, then, is his opportunity. The tentative organization being determined upon and put into effect, the matter of administration becomes a live issue. This in itself is a large task, and many cities recognize it when they

do not expect the principal to do any teaching and provide him with a clerk. There must be mutual understanding between principal and clerk, so that the administrative duties may be handled effectively and expeditiously. Among these may be mentioned a classification adopted by Nutt.

#### Administrative Duties

1. Annual and semi-annual
  - a. Supplies and equipment (orders often placed monthly)
  - b. Promotion and transfer of classes
  - c. Individual promotions
  - d. Classification of new pupils
  - e. Checking of permanent records
  - f. Reports to superintendent
  - g. Commencement exercises
  - h. Schedules.
2. Daily Routine
  - a. Inspecting building and grounds
  - b. Inspecting janitor service
  - c. Care for pupils before school opens
  - d. Excluding pupils
  - e. Attendance
  - f. General and special discipline
  - g. Care for luncheon pupils.
3. Miscellaneous
  - a. Fire drills
  - b. School enterprises and activities
  - c. Parent-teacher organization
  - d. Teachers' meetings
  - e. School exhibits
  - f. General.

With the multiplicity of administrative detail confronting the principal, "a good sense of proportion will be of use in revealing relative values and in indicating relative time-worths of different executive details." This brief outline indicates the need for professional growth in administrative matters.

With the public school touching every home indirectly, if not directly, the opportunity for community leadership is of supreme importance. Not only is there greater opportunity for the principal than there was years ago, but as we grow we see so much more to do than we did before. If, then, we assume the premise that the community should appreciate the leadership of the principal in community affairs, how can this be brought about? In the first place, through the lives of the boys and girls who see their leader, the school principal, every day. Here, what he is counts more than what he says. The majority of pupils of compulsory school age have no other opportunity of seeing and linking up with education leaders except as they meet the school principal in their all-too-short school career.

The quality of being a "good mixer" is a wonderful asset. The average community is often quite heterogeneous—composed of many nationalities with their variations of beliefs and practices. The public school at present offers the only opportunity for the unification and amalgamation of this "babble of tongues" and preconceived notions of liberty. Parents will come to the school when their Johnnie or Mary is to appear on the program. This in itself is good for Johnnie and Mary, but it is better for Johnnie's or Mary's father and mother, for they will not only see what the school is doing for the children but the principal has an opportunity of saying some things at a time like that which will do much to cement his community leadership. These entertainments may take the place of special exercises prepared by the class and given by them on leaving the eighth grade ready for high school. The growing principal will do well to ally himself with the local Board of Trade and speak before it whenever opportunity offers; also, before the women's clubs, civic organizations, church gatherings, and other local gatherings. Receptions, mothers' meetings, Parents' Day, all furnish opportunity to strengthen community leadership.

Let us now come to the real issue which should determine the professional growth of the local school head—namely, professional study. This field is made up of *first*, the organized body of knowledge which is our inheritance from past ages which we designate the curriculum; and, *second*, the teaching or transferring of this body of knowledge into the mind and action of future generations which we may call methodology or the technique of our profession.

There is probably no place in the school system where the principal in days gone by could function as a mere administrator, and be "a dead one" so far as professional study is concerned, as that of an elementary school principal in a large city. Gilbert says, "The encroachment of petty details is insidious. The many demands upon the principal's time—calls for books or supplies, cases of discipline, long visitations with callers, answering the telephone, and ceaseless reports—are so insistent that, unless he is very watchful, more and more time will be given to them until he becomes that most ineffectual, that deadest of pedagogs, the office principal. Every superintendent knows him. He is always there, in his chair, at his desk. Seldom can he be surprised away from his customary spot, and, if he is, he apologizes." Here is a real need, the development of professional study, which will be discussed later in this article.



From the proper professional study there will result the more intelligent supervision of teachers. So great has this need become and so varied in character are the demands of the special subjects that the superintendent has at present on his staff directors whose duty it is to outline the work and delegate the supervision to a special group who will relieve the principal of the technical details in such subjects as art, music, physical training, writing, household economy, manual training, nature study, and perhaps other subjects. Here, then, self-effacement and team work is necessary. To be able to advise with these supervisors and do it so that the teachers will be intelligently assisted, calls for a background of professional study and practice. The principal should never fail to give credit to a supervisor for what he does. The opportunity afforded supervisors in comparing the methodology of various teachers is of great importance. The supervisor is conscious of the fact that the building principal's support is necessary and he should counsel repeatedly with his principals.

We have outlined the need for professional growth in (1) Administrative duties; (2) community leadership, and (3) professional study. We shall now be more specific in pointing out:

*How the principal may grow professionally*—First of all, there must be a spirit of investigation. Dewey, that master of educational philosophy, says:

The easiest way is to accept any suggestion that seems plausible and thereby bring to an end the condition of mental uneasiness. Reflective thinking is always more or less troublesome, because it involves overcoming the inertia that inclines one to accept suggestions at their face value; it involves the willingness to endure a condition of mental unrest and disturbance. Reflective thinking, in short, means judgment suspended during further inquiry; and suspense is likely to be somewhat painful. . . . To maintain this state of doubt and to carry on systematic and protracted inquiry, these are the essentials of thinking.

The investigator has the open mind. Perhaps we think we are not orthodox pedagogically unless we think and practice what we did when we began our teaching career. Am I courageous enough to follow an educational investigation through, suspending my judgment until "all the counts are in" and then honestly change "right about face" if the facts warrant?

Again, may I remind you that the laboratory is at hand for carrying out this inquiry. Educators are just beginning to utilize these experimental opportunities. Every university in which there is a school of education is at present alive to the wisdom of linking up their courses with the actual classroom work of the elementary teacher. In my own city, Pittsburgh,

the University of Pittsburgh is giving courses of especial interest and profit to principals, both at the University in the late afternoons and Saturdays, as well as in public-school buildings wherever there are enough to justify the forming of a class. Courses in education, psychology, philosophy, sociology are profitable in what they offer for any principal, even though he may hold a Master's or Doctor's degree. Besides, the courses offered along the line of general culture, if only pursued one hour a week, will tend to give one the needed help in the broad outlook which is so much needed by all professional men if they want to grow and develop.

In the year 1909, a citizen of Pittsburgh, possessed of means to carry out his generous wishes, decided to do something for the children of the public schools of the city where he had spent a large part of his life. The only preparation which the majority of city-raised children have for taking their places as factors in the world's work is what they acquire in their homes and in the public schools, and this good man was desirous of putting into their school life that which would make for character, a fair education, improved living conditions, and good citizenship. This was a considerable task—to reach thousands of children of all classes with an influence that was to give them high ideals, self-reliance, and healthy views of life.

In August of that year, this friend of the children called in consultation Dr. John A. Brashear to help solve the problem. Dr. Brashear recognized the value of a school teacher who possessed enthusiasm regarding her task and her importance as a partaker in the great work of public instruction. The teacher is the first associate of a child in the world outside the home, independent of the family. The impressions received in the first schoolroom are never forgotten, and throughout childhood and youth, the teacher in the school which he attends is a prime factor in the child's development. So it was decided to reach these girls and boys through the further education of their teachers, whose increased efficiency, wider experience, and broader outlook must inevitably have a beneficial effect upon the children with whom they come so closely in touch every day.

That this was a wise decision was confirmed by the attitude of the teachers when the proposition was put before them. Their enthusiasm was an inspiration, their eagerness to benefit by and assist in this unprecedented, generous plan for public good was astonishing. It was the fulfillment of an ambition

for hundreds of teachers, the solving of a serious problem, and the lightening of a heavy burden for so many. Some of the teachers, with anything but large salaries, were saving a little at a time to secure further education during the summer months. Others were putting in their spare hours reading and attending night school and Saturday classes at the University of Pittsburgh and the Carnegie Institute of Technology, while there were those who did not have the physical strength to study while they taught, or the means to attend school during vacations. They constantly felt, however, the demand for increased efficiency on their part and the need of reënforcement of their effort by coming in touch with new ideas, improved methods, and educators of great minds and characters.

It was the donor's desire to set aside one quarter of a million dollars, the interest on which was to be devoted to this plan for the good of the children. This furnished for the project about twelve thousand annually, which was placed in the hands of Dr. Brashear. Dr. Brashear gathered around him a group of men to aid him by their counsel and their earnest study of the matter, in the expenditure of this money in the wisest manner possible for the boys and girls of Pittsburgh. This group of men was known as the Educational Fund Commission, and consisted of Mr. W. Lucien Scaife; Dr. George W. Gerwig, secretary of the Board of Public Education; Mr. Charles Reisfar, Jr., director of compulsory attendance, Board of Public Education; Hon. John D. Shafer, Judge of the Common Pleas Court; Hon. Joseph Buffington, Judge of the United States Circuit Court of Appeals; Mr. Charles F. Scott; and Dr. John A. Brashear.

Mr. Scott afterward left Pittsburgh to go to Yale University as dean of one of the technical schools and was therefore unable to continue his work with the Educational Fund Commission. Professor C. B. Connolly, of the Carnegie Institute of Technology, later Commissioner of Labor and Industry for the State of Pennsylvania, was elected to fill his place.

In 1910 the first group of teachers was selected for summer study at the various universities and colleges of their own choosing as follows: Columbia University, 18; Harvard University, 15; Cornell University, 8; Chautauqua Institution, 7; Grove City College, 7; University of Pittsburgh, 6; Prang Institute, 3; Wittenberg College, 2; Dartmouth College, 1; Ebensburg College, 1, and Kindergarten College, New York, 1.

The cost of the scholarship for this year was \$8850. A scholarship is estimated at two thirds of the expense of a summer course.



In 1913, some new plans were adopted with regard to the selection of teachers for summer study. Heretofore, the awards were made among the teachers of the grade schools, these being considered the schools in which effective work among the pupils was needed first. Principals and high-school teachers had not been included in the scholarship plan, as it was thought educational opportunities had more likely come to this class of teachers than to the large body of grade teachers. It was decided to write to the principals asking them to express their views with regard to being sent to summer school. After the various opinions expressed in the responses of the principals had been given study and earnest consideration, it was decided to send fifteen of them, carefully selected from the grade schools, for summer study. So each succeeding year, the Commission has awarded scholarships to principals as well as teachers, which has given them an opportunity of studying in colleges and universities of their choice from Maine to California and from Canada to the Gulf of Mexico. During the summer of 1923, thirteen principals were studying in institutions listed as follows: Columbia University, 6; University of California, 2; Chautauqua Institution, 1; Ocean City Summer School, 1; Pennsylvania State College, 1; University of Pittsburgh, 1, and University of Vermont, 1.

I have traced the work of the Educational Fund Commission at some length to show what a power for good this organization has been and also that we might vision what it will do for the teaching and supervising staff of the Pittsburgh Public Schools in the years to come.

It should not be necessary to urge the reading of magazines and periodicals, such as the *American School Board Journal*, *Educational Administration and Supervision*, *Educational Review*, *Elementary School Journal*, *Journal of Educational Research*, *Journal of Educational Psychology*, *Journal of the National Education Association*, *Pedagogical Summary*, *School and Society*, *Teachers College Record*, etc.

The Pittsburgh teachers and principals have for years had a regular course of study prepared each year which, if followed in its maximum requirement, would furnish a liberal education to any one, and also prevent any principal from "growing stale" professionally. For the current year Curriculum Construction by Charters and Vocational Guidance by Ryneerson have been used as basic texts. The following is taken from pages 12-15, Pittsburgh Teachers Professional Study Bulletin, 1923-1924:



## HOURS FOR HOLDING ALL MEETINGS, BOTH BUILDING AND GENERAL ELEMENTARY SCHOOLS 3:45-4:45.

### ALL ELEMENTARY SCHOOL TEACHERS

September 17 to 21, inclusive—Building Reading Circle meetings by grades, years, or subjects.

October 15 to 19, inclusive—General meetings by grades, years, or subjects.

November 19 to 23, inclusive—General meetings by grades, years, or subjects.

Tuesday, January 15—Vocational Guidance (Building circle). (Bulletin on Vocational Guidance to be read by each teacher before date of meeting.)

Tuesday, February 19—Subject relating to Curriculum Making to be selected by the Principal (Building circle).

Tuesday, March 18—Review of Curriculum Construction by Charters (Building circle).

### ALL ELEMENTARY SCHOOL TEACHERS AND ALL SUPERVISORS CURRICULUM CONSTRUCTION—

W. W. CHARTERS, THE MACMILLAN CO.

#### REQUIRED OF ALL TEACHERS IN THE SYSTEM

Each and every person connected with the educational work of the schools shall read two (2) books selected from the following suggested lists *in addition* to the individual requirements as set forth above.

Adams, John. Modern Developments in Educational Practice. Harcourt, Brace & Co.

Burton, William H. Supervision and the Improvement of Teaching. D. Appleton & Co.

Cubberley, Ellwood P. A Brief History of Education. Houghton Mifflin Co.

Gentile, Giovanni. The Reform of Education. Harcourt, Brace & Co.

Gray, Clarence T. Deficiencies in Reading Ability. D. C. Heath & Co.

Hartman, Gertrude. The Child and His School. E. P. Dutton & Co.

Holley, Charles E. The Teacher's Technique. The Century Co.

Inglis, Alexander. Principles of Secondary Education. Houghton Mifflin Co.

Leonard, Sterling A. Essential Principles of Teaching, Reading and Literature. J. B. Lippincott Co.

Nutt, Hubert W. Principles of Teaching High School Pupils. The Century Co.

Parker, Samuel C. Types of Elementary Teaching and Learning. Ginn & Co.

Parkhurst, Helen. Education on the Dalton Plan. E. P. Dutton & Co.

Patri, Angelo. Child Training. D. Appleton & Co.

Pringle, Ralph W. Adolescence and High School Problems. D. C. Heath & Co.

Reisner, Edward H. Nationalism and Education Since 1789. The Macmillan Co.

Russell, James F. The Trend in American Education. American Book Co.

Smith, William A. The Reading Process. The Macmillan Co.

Snedden, David. Civic Education. World Book Co.

Spencer, Anna G. The Family and Its Members. J. B. Lippincott Co.

Stableton, J. K. Your Problem and Mine. Public School Publishing Co.

- Stark, William E. *Every Teacher's Problem*. American Book Co.  
 Tryon, Rollo M. *The Teaching of History in Junior and Senior High Schools*. Ginn & Co.  
 Van Denberg, Joseph K. *The Junior High School Idea*. Henry Holt & Co

## GENERAL CULTURE

- Bjorkman, Edwin. *The Soul of a Child*. Alfred A. Knopf Co.  
 Bryant, Louise. *Mirrors of Moscow*. Thomas Seltzer, Publisher.  
 Burroughs, John. *Nature Near Home and Others Papers*. Houghton Mifflin Co.  
 Davis, William S. *A Short History of the Near East*. The Macmillan Co.  
 Dewey, John. *Human Nature and Conduct*. Henry Holt & Co.  
 ———. *Reconstruction in Philosophy*. Henry Holt & Co.  
 Galsworthy, John. *Loyalties*. Charles Scribner's Sons.  
 Gerwig, George W. *Washington, the Young Leader*. Charles Scribner's Sons.  
 Hamilton, Lord Frederick. *The Vanquished Poms of Yesterday*. George H. Doran Co.  
 Hearn, Lafcadio. *Books and Habits*. Dodd, Mead & Co.  
 Hyde, William DeWitt. *The Five Great Philosophies of Life*. The Macmillan Co.  
 Matthews, Brander. *The Tocsin of Revolt*. Charles Scribner's Sons.  
 Morley, Christopher. *Modern Essays*. Harcourt, Brace & Co.  
 Ogburn, William F. *Social Change*. B. W. Heubsch Co.  
 Panunzio, Constantine. *The Soul of An Immigrant*. The Macmillan Co.  
 Ross, Edward A. *The Social Trend*. The Century Co.  
 Saylor, Oliver M. *The Russian Theatre*. Brentano's.  
 Schevill, Ferdinand. *History of the Balkan Peninsula*. Harcourt, Brace & Co.  
 Stearn, E. G. *My Mother and I*. The Macmillan Co.  
 Stoddard, Lothrop. *The Revolt Against Civilization*. Charles Scribner's Sons.  
 Strachey, Lytton. *Eminent Victorians*. G. P. Putnam's Sons.  
 Turner, George H., ed. *Public Opinion and World Peace*. The International Lyceum and Chautauqua Association.  
 Van Loon, Hendrik Willem. *The Story of Mankind*. The Macmillan Co.

For the year 1922-23, Project Teaching was made the basis of study under the direction of the building principals. For the year 1921-22 among other topics studied were (1) Professional spirit as reflected in the teacher's attitude toward (a) joyous teaching, (b) joyous learning, (c) joyous living, (d) child welfare, (e) teacher welfare, and (f) community welfare; (2) a health program; (3) projects; (4) tests and measurements. For 1920-1921, *The Classroom Teacher*, by Strayer and Engelhardt, was the basis of study.

When it is remembered that this work is done under the direction of the principal, where he himself must know the subject before taking it up with his teachers, the result of such work is all the more obvious. During recent years, the following books were required of elementary principals for special study: What

Is Education? by Ernest Carroll; How to Teach, by Strayer and Norsworthy; The Cleveland Survey, by Leonard P. Ayres; Measuring the Worth of the Public Schools, by Charles H. Judd, and Schools of Tomorrow, by John Dewey and Evelyn Dewey.

There is a great opportunity for growth by active affiliation with educational organizations, not only local, but State and National. Their publications, if properly filed, can be used to build up an excellent working library for the elementary school principal. Attendance at conventions affords inspiration which will assist the busy schoolman to work up to his best. Moreover, the ethics of the profession require the active participation and support of everything pertaining to educational progress.

In order for the principal to function at his best, he needs to associate with the leaders in other lines of work. By so doing, it will be possible to get the other fellow's viewpoint in matters which will help in deciding what may be best in educational policy and practice. The man on the outside may not be conversant with the scientific methods essential in school work but he gives you the reactions favorable or unfavorable as he observes them. These honest convictions on the part of the layman are to be welcomed. Besides, what is gained in a social way gives large returns. Getting along with people is necessary. The one who can do it and be a leader in his profession is a public benefactor.

Cubberley, writing under the topic of professional spirit, says:

Perhaps the matter of first importance for the principal who would be a leader in his profession is that he become imbued with the professional spirit. He must see more clearly than those around him the great spiritual importance of the work he is engaged in. Probably no service that one person renders to another compares in importance with the proper educational development of the boy and girl. In a democratic nation such as ours, public education is the greatest of all our undertakings for the promotion of our national welfare, and the teacher in our schools renders an inconspicuous, but highly important, national service.

In order to do this requires professional leadership. Several of our educational writers have given what we will summarize under the following headings:

1. Ability to think through an idea, work it out clearly, and reduce it to such written form that it influences others and moulds procedure elsewhere.
2. Ability to stand on one's feet and speak fairly well.
3. Mental activity. No one can exercise leadership through inertia.
4. Intellectual courage. The man who always plays safe stays still or follows.
5. Ability to get along well with people. This does not mean a professional mixer or a glad-hander.

Reforms in the professions of medicine and law have come because of those practicing medicine and law and not from the laity. Because of the preparation required to enter these professions, and also because they have gained the confidence of their patients and clients, law and medicine have established themselves to the extent that their advice is sought and followed. As a group can we not, as principals, take such advance steps in our vocation which will in time command the confidence of our patrons to the extent that they will seek our advice in anything pertaining to the educational life of their boys and girls? Can we honestly direct and lead the thousands whom the parents entrust to our care, in loco parentis, and whom State statutes decree shall be prepared for usefulness to the State as well as become an asset to society? To the extent that we answer these questions we will as principals, be entitled to the respect and distinction which comes to a profession.



## CHAPTER III

### PRINCIPALS' PROFESSIONAL STUDY CLUBS

JESSIE M. LOCKWOOD

*Principal, John Muir School, Seattle, Washington*

THE PRINCIPAL must grow constantly if he is to realize his largest efficiency and measure up to the increasing demands of his position. He must feel a personal responsibility for educational progress not only in his community but in State and Nation. This requires on his part a broad professional spirit, the attitude of mind of the student, a willingness to work, and a desire to share with others the results of his study and investigation.

As one means of growth, many of the Seattle principals have organized into informal study groups, over half the entire number being included in the four clubs. They are designated as the Principals' Professional Study Club, organized in 1916; the Five O'Clock Club, organized five years ago; the Educational Research Club, and the Monday Evening Club. These clubs, having an average membership of twelve, meet every two weeks, from two to three hours, for a five o'clock dinner, enlivened by general discussion and followed by formal reports of some study undertaken.

Following is a brief account of some of the work attempted and accomplished during the short period of existence of these clubs: (a) A survey of time apportionments in other cities and comparison with our own; (b) distribution of principals' time; (c) best method of classroom supervision and related topics; (d) educational tests and measurements; (e) giving silent reading tests and studying results; (f) study of Cubberley's "The Principal and His School," and (g) writing—a study of causes of poor writing and remedial measures.

Discussions and reports taking place at the meetings of these groups are based upon investigations by some members in their own schools. For example, this year the general topic of one club was The Principal and the Improvement of Instruction, including reports upon what they were doing in their schools in primary reading, intermediate and upper grade reading, oral and written language in the upper grades, primary arithmetic, diagnosis of children's difficulties in fractions and remedial measures, spelling—causes of errors.



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A valuable part of these meetings is the time devoted to discussion of individual problems, including administrative matters and methods of time economy in handling routine work.

This directed thought and work have brought to the members of these clubs an increased interest in educational problems, an inspiration and professional growth that have resulted in a quickening and stimulation of our entire principals' organization, with tangible evidence of results in our school system.

## CHAPTER IV

### THE SCHOOL PRINCIPAL AS A CITIZEN

IDE G. SARGEANT

*Principal, School No. 10, Paterson, New Jersey*

**S**PEAKING at an educational meeting in London recently, H. G. Wells declared: "I want to teach shamelessness to school teachers. I want to teach them arrogance and aggression. Arrogance and the disposition to take hold of the world is not a characteristic of all schoolmasters. A lot of them seem to be unconscious of the amount and range of their functions. They don't seem to realize that the world is not a going concern, but a finished affair in which they have a very subordinate and supplementary part. They are a shy and specialized people who keep together even on their holidays." Then, turning his thoughts to the "new and better world," the "reconstructed human life," he said: "When the reconstructed human life exists school teachers will be the very center of it. Only by and through teachers, heroic teachers, will it be possible to conceive of any escape from the distressful life that mankind lives today."

In discussing "The Principal as a Citizen" I shall do so with the premise that he is to play a major part in bringing into being and administering this "reconstructed human life." To do the work I shall outline for him, he will be compelled to abandon his "shyness," his love of cloister-like habits, and herding almost exclusively with his kind. If he is not aggressive by nature and shrinks from a fight, even when waged for righteousness, he should never become a principal. As the leader of a group of teachers and children he must ever be alert and aggressive in obtaining suitable environment and adequate aids to make possible the most complete progress for those under his supervision. At times this may bring him into seeming conflict with a superintendent who wishes to reduce him to a mere cog in the department machinery. It may mean for a time that he is brought into conflict even with a member of the school board because of the latter's erroneous notions. It may mean that his district needs to be aroused and made to see the need which he is striving to meet. Under any of these circumstances, he should always be a gentleman—tactful, honest, and fair. With these principles as fundamental rules he is almost certain to win in any contest which may arise, if he has been a good citizen.

Now, what constitutes being a good citizen? For the average person giving an honest day's work or any honest article for an honest price, providing well for one's family, being a good neighbor, voting at the primaries and regular elections, supporting church, charity, and social work, constitute the bulk of good citizenship. Not so for the school principal, although many of us fail to live up to these requirements for the average person.

The principal is in a position of leadership. He is to train and direct a corps of teachers who are to teach history, love of country, current topics, a respect for law, a sense of civic duty, and personal responsibility. In addition to a thorough scholastic education, he should have a comprehensive grasp of current problems, current thought, the hidden forces working to destroy the structure which he and his teachers are working to build. He should be active in politics, but not an intense, narrow partisan. He should be active in religious work, but not a narrow sectarian. In short, he should be able to discuss political, economic, and religious questions with his faculty and pupils in a way to throw light upon these questions and have all feel his presentation is helpful and fair. He must know the leading citizens of his community, its business, political, charitable, social, and religious organizations. Besides being a member of several of them, he must be strong enough with these organizations to insure accurate information and wise counsel should it be needed. He should be well enough known to the membership to make it dangerous for his enemies to attack him unjustly. It is only in this way that he can secure the consideration due his district and his school. And he is not a good citizen unless he does secure this consideration.

But you say: "This is a big job." I know it is. This is the reason why Mr. Wells tells us to "buck up" and show a little "arrogance" until we awake to the importance of our work and have aroused the public likewise.

Is there any good reason why the judge of one of our inferior courts should receive a salary of \$10,000 to \$15,000 a year while the principal of one of our large city schools receives only \$3,000 to \$4,000, except that we are "shy" and have failed to present our case to the public, while the lawyer who is "aggressive" has presented his needs and has been taken care of. Principals know the inside conditions of the schools. We know that many schools are weak in their principalships, because the salary paid does not attract first-class ability. In the end it is the public welfare which suffers, and we are not good citizens if we do not

make this condition known. We should make this known in no uncertain way in our social clubs and our community organizations until it is thoroughly understood.

Why do I stress higher salaries so strongly? Because the competent executive and reliable expert in all lines of human endeavor is a high-priced individual. Men have gone into these lines of work because they saw a future. The same rules govern in regard to the field of education. Except in rare instances, the best ability is not being drawn into educational work. Why? Because it does not pay. Some look on this attitude as too mercenary. But is it? As a general thing our young men and women are not mercenary? They will throw themselves generously into any cause really worth while; the World War showed that.

But too many of our young men and women are shunning school work. And can we blame them? Altruism is commendable under certain circumstances, but it degenerates into sickly sentimentalism and sheer stupidity when it comes to selling one's services to a wealthy patron for less than those services will command elsewhere. We cannot have too much of real idealism. But the sooner the wealthy American public ceases to play the mountebank in education, ceases to befuddle itself with the fake notion that because young people are idealistic, they will work as teachers for a smaller return than their abilities will command elsewhere, the sooner the American public will awake to the fact that this inane policy is simply robbing their greatest treasure, their own children. If the schools are to continue to be supplied with a grade of ability purchasable with the wage that hires the average clerk, we shall continue to have the lifeless instruction, the senseless routine, the parrot, sheep-like subservience to tradition, lack of respect for constituted authority, law, rights of others, and a sense of personal duty and responsibility. "Shy," timid, unaggressive teachers, such as Mr. Wells describes us to be, are not going to turn out upstanding, fearless, aggressive honest citizens. Fear never engendered courage. And the only way to dispel fear from the ranks of education is to make the work sufficiently attractive in money and honors to arouse the most vigorous competition among our ablest and best for positions in this field. It is not until this has been done that we shall have "heroic teachers," and "the reconstructed human life."

We may complain that the picture has been overdrawn by Upton Sinclair in his "Goosestep" and in his "Goslings," but



those of us who are awake know that in his basic facts he is correct. The faulty procedure in American education must be corrected from the inside, and the principal is the only one closely enough associated with the actual work to know the facts, who also occupies a position of sufficient eminence to make himself heard. His position is of such a vital nature to the public weal that he cannot discharge his duty as a citizen sufficiently by writing learned articles and attending educational meetings. His big job as a citizen is in his own community, where he is known and can hit the hardest blows for the right if the welfare of the schools demands that he enter the fray. The school principal as a citizen, like the paid attorney for a powerful corporation, should ever be alert to the interests of the school and the public should so understand his position; neither party expediency, church affiliations, personal friendship, nor personal dislike should be allowed to stand in the way of commendation when it is deserved nor to prevent condemnation when the situation requires it. As a skillful advertiser, he should allow no opportunity for enhancing educational progress to pass without making the most of it. It is because we have failed to do this that the general public is so wofully bewildered at the mounting costs and the adverse criticisms of our schools.

I am fortunate in living in a town that has been making remarkable progress in bettering educational opportunities, but for the country as a whole, we know that classes are too large, many teachers underpaid and poorly educated, many classrooms unfit for use, many school boards synchronize better with the last century than the present one, and the school funds are largely inadequate. Regardless of Dr. Pritchett's report and others who are shouting for retrenchment, we must inform the school patrons that we have only begun to spend money. And through our work with community organizations, we must convince our people that in devoting ever-increasing sums to public education they are making a sound investment. In this phase of his citizenship work the principal must so win the confidence of his district in his good sense and reliability that they will support his suggestions for school betterments even in those matters of which their personal knowledge is necessarily very limited.

Some principals make the great mistake of refraining from taking part in political activities lest they be accused of being "politicians," and bringing "politics into the schools." No person who is not a good politician in the proper use of the word has the qualifications necessary to make a good principal. The



better politician he is the less of politics there will be in his school. But "politics in the schools" is a phrase greatly overworked. As a general thing our schools are little affected by "politics." And it is becoming increasingly dangerous for any political boss to attempt to tamper with the schools. Americans as a mass are sensitive and quickly resentful of anything having a shady appearance in this connection. It is in this keen sensitiveness of our public that our greatest hope lies. If by an adequate compensation and by proper organization we can develop a body of principals big enough to meet the requirements of their positions, within a generation it will be possible to "escape from the distressful life that mankind lives today," mentioned by Mr. Wells. But it means the principal must be clear-seeing, aggressive, pertinacious, courageous, generous, and honest as a citizen. There is no more difficult position in American life to fill and fill worthily. In the words of the poet, he must

"Be not like dumb driven cattle,  
Be a hero in the strife."

I stress the need of broad activities as a citizen as there needs to be a tremendous change in the public attitude toward education, a tremendous growth in the public understanding of education and of the strongly entrenched foes of education, with their submerged as well as surface activities against education. It will be as a citizen, rather than as a supervisor of instruction, that he will be able to do effective work in this field. It will be more difficult and more dangerous than work within the school. He will encounter and must disarm officials who look upon the exercise of his rights as a citizen, as lese-majesty, if not in accord with the party in power. Some board members still look upon teachers as upon their private employees. Some still look upon any criticism of existing conditions as a personal insult. To meet these varying situations and keep the car of progress going ahead necessitates the use of courage, tact, and sound judgment. The goal to be reached must be the one thing to be kept in mind in connection with all these agencies. No person is suited to be a principal who will harbor personal resentments. When the fight is on fight hard and go the limit. But when the fight is over drop it. One day we may have to "walk softly," another day to "carry the big stick." Our prayer should be for wisdom to know when to do the one and when to do the other. It may be necessary for the good of the cause to join hands cordially today with the man with whom we were in bitter conflict yesterday. In this respect principals are not so efficient as law-

yers. Too many principals resent an adverse opinion as a personal affront rather than as a difference in point of view, a situation which the lawyer takes good naturedly.

Perhaps I can show most clearly how the principal should function as a citizen by describing briefly some of the activities of Dr. Isaac Pearl, principal of the Sandy Hill School. Aside from a change in names, I shall relate actual happenings.

When Dr. Pearl became principal of the Sandy Hill School, he had already served in a similar capacity in several of the smaller schools of the city. He had been superintendent of one of the largest Sunday Schools, an officer in his Masonic Lodge and other fraternal organizations, a director in a business men's association, a member of several political clubs, a speaker in presidential campaigns and an active participant in discussions of local problems. He had represented the teachers before the State legislature and had exerted considerable influence in securing the enactment of the teachers' tenure law and the law entitling teachers to retire on half pay after thirty-five years of satisfactory service. I am citing these different activities to show the lateral connections which a principal should possess to have the requisite strength as a citizen to meet the demands of his position. Too many school men have suffered defeat in a worthy undertaking by not properly fortifying themselves.

When Dr. Pearl came to Sandy Hill, the school had in the neighborhood of fifty classes, on part time, housed in a dirty, dark, ill-smelling ramshackle building, out of repair and needing paint. Into this warren were herded daily nearly two thousand children, whose parents represented thirty different nationalities. Rooms with lighting capacity for twenty-four children were occupied daily by ninety-six. The people of the district were apathetic and discouraged. "It is a shame that such conditions should exist, but you can't get anything better for Sandy Hill," they said when queried by Dr. Pearl about a new school building. The former principal, an honest, hard-working man, had reported these distressful conditions year after year to the Board of Education, but nothing had been done. "No funds," they said.

"When Dr. Pearl approached certain influential individuals, he was met with: "Oh, what you want is palatial. Such a building would be all right for a fine residential district, but you have a lot of cattle down there who would not know how to act in such a school." These people not realizing that the more defective the home the more complete the school must be.

When political leaders were interviewed, the principal was met with: "You have a lot of socialists and anarchists. Don't you know that your district elected a socialist at the last election?" "So I am told," replied Dr. Pearl, "but I am also told that the cause was 'We went Republican, nothing done to improve the school. We went Democratic, nothing done to improve the school. Now we are trying the socialists to see if they are fakers, too.'"

But no new school. Then catchy reading notices appeared in the press describing the strange varieties of vermin which appeared in the classrooms frightening pupils and teachers. The large number of children suffering from sickness was noted and commented upon. The Board of Health investigated, the fumigating companies tried their concoctions, the Board of Education put in new floors, but the bugs still swarmed like the locusts of Egypt. The old school became a monthly bill of expense. The general public began to ask questions. The Mayor, the Board of Education, and the Board of School Estimate visited the school, returned to City Hall and appropriated \$275,000 for a new building, and great was the rejoicing at Sandy Hill.

But alas! the joy was of short duration, for the following week the same bodies met again and rescinded the vote making the appropriation. When Dr. Pearl reproached the Mayor with "You told me we needed a new building and I do not understand your action in rescinding the vote to build one," the Mayor replied: "You do need a new building, but I am supposed to represent the wishes of the people. You are the only one who amounts to anything who is actively urging the new school. While two bank presidents and a bank director who is one of our largest manufacturers are using all of their influence to oppose the outlay. They say the old building is good enough. The people of your district are not doing anything to back the new school except to whine at home and kick the administration." "Then you want a noise?" queried the principal. "Well, I suppose you might put it that way," replied his Honor. Immediately the Alumni Association became very active. A powerful community center was formed, members of the Board of Education and the principal talked to meetings in the back room of saloons, of athletic clubs, and on the street corners—and the battle was won. Dr. Pearl was cautioned by some of his own colleagues to be careful as he was making powerful enemies in fighting so strenuously for a new school. This is best answered by later events. Soon after the new school had been



finished, one of the three bankers, cited above, walked into the office, greeted the principal cordially and said: "I opposed you in the matter of building this school. I now see that you were right and I was wrong. I am glad you won out. If I can be of any help to you in the future let me know."

Dr. Pearl feels that it is just as reprehensible for the government to violate the law as for the individual. Elizabeth Gourly Flynn arranged for a lecture. Immediately the fearful ones became hysterical. Many large employers and the city newspapers demanded that she be arrested if she tried to speak. The Mayor was deluged with letters of this nature. Dr. Pearl felt that it was his duty as a citizen to aid the Mayor who seemed uncertain as to the course to pursue. Consequently he wrote the Mayor a letter calmly reviewing the situation, with this conclusion: "Let it not be said that our city violated the law. Miss Flynn has a constitutional right to speak so long as she keeps within the law. If she breaks the law, arrest her on the spot; but do not make a martyr of her and her cause by arresting her in defiance of law. The chances are that if allowed to speak the partial halo which now hangs over her will be dissipated." She came, spoke, said nothing but ordinary platitudes and has not spoken in the city since. Two years later, when the principal was in his office, the Mayor extracted the letter from his files and said: "The coming of that letter was like a breath of fresh air in a parched desert." Yet it was only a simple act of helpful citizenship.

From many years' experience working among large groups from Europe, Dr. Pearl has found that these newcomers are well-meaning people, but are often woefully wronged and deluded by hair-brained, shallow thinkers, sometimes by criminal members of their own race, but largely through the neglect of Americans to do their duty. For this reason he has made it a practice to become as familiar as possible with the content of the foreign language press read by his people. As far as time will permit, he has attended their mass-meetings. In this way he has met personally William Hayward, Miss Flynn, Debs, Berger, Tresca, and Miss Golden. The fact he is in attendance gives him a larger influence in the community group conferences held later at his school.

Near the close of the war, one night, he found himself crowded with several hundred others, all aliens, in a dirty, back-street hall, listening to a hot-headed agitator from a neighboring city. Among other things the speaker declared, "America is a

huge fake. What do Americans care for us but to exploit us? See where you are meeting tonight. In a dirty, stinking hole, not fit to stable hogs and cattle. Look at yonder beautiful school building. There is where you ought to be, in a clean, warm room with good seats. It is your right, but what do Americans care. We do their drudgery; when that is done, to hell with us." When he had finished, Dr. Pearl asked for permission to speak and began quietly. "My friends I am an American. Many of you send your children to my school. You have seen me at some of your meetings. You know I am interested in your welfare. I agree with some of the things the speaker has said. When he says this place is not fit to stable hogs and cattle he is right. When he says you should meet in the school building he is right. But when he says all that America cares for you is to exploit you he is wrong. Whose fault is it that you are not meeting in the school tonight? Your own. You have never asked permission to meet there. How many Americans know that such a society as yours exists? Do something worth while to help and make yourselves known. Don't herd together in selfish racial groups. Get out in the open where Americans can see you. The American is not a beggar. He does not ask to have his blessings brought to him, but goes out after them and works for them with all the life and strength he has. That is what makes America worth coming to, each man doing his part. Go to the Board of Education, ask for a meeting place in the school, and let me know how you come out." Within two months Dr. Pearl was the guest of this same society when it held a folk-song concert in the High School Assembly with over fifteen hundred present. Another bit of the principal's work as a citizen had been done.

In 1917, when President Wilson delivered his message to Congress which marked our official entry into the war, Dr. Pearl was in Washington. Immediately after his return to school he was appointed by the Mayor, chairman of the community garden work, and much vacant land was utilized to produce food. But it was as the chairman of a coöperative association handling food supplies that he did his most effective work outside of school during the war. This organization handled immense quantities of the staples without profit, using one of the basement rooms of the school for storage. Its bank balance exceeded fifty thousand dollars. It placed an order for 3850 barrels of flour with one milling company, and was able to secure sugar in some instances when regular grocers could not. The Coöperative delivered flour



to the homes at from three to five dollars per barrel less than the retailers.

Naturally, this aroused intense hostility on the part of the dealers. They demanded that the Board of Education put the clamps on the principal and confine him to strictly school work; but the Board refused to interfere. One of their committees demanded action of the Mayor and he replied: "If Dr. Pearl has done anything wrong why don't you get him. You don't have to come to me," to which they exclaimed, "Get him, why that man is a politician. He has placed more than three hundred barrels of flour within ten blocks of his school at \$3.25 a barrel under our price. Touch him and a yell would go up that would shake the city. He is foxy." They threatened to boycott wholesalers, supplying the Coöperative. They complained to the county, State, and National food administration, that Dr. Pearl was violating the food regulations. Taking advantage of a technicality, the retailers attempted to shut off the sugar purchases by the Coöperative. The principal appealed to Mr. Hoover, a representative from Washington came on, held a hearing and directed that the allowance to the Coöperative be continued. All other means having failed, the president of the retailers' association and its attorney called upon Dr. Pearl and pointed out to him the bitter feeling which he was building up against himself and demanded that he stop it. To this in reply he smilingly said: "Some day it may be said of me, possibly, as of another, 'We love him for the enemies he has made.' I have no personal ill will for anybody, and I hope when the war is over we may be friends again. But I must go on with this work so long as our people need it." After peace came the association discontinued its operations and closed its books with a small balance in the treasury when all indebtedness had been paid.

What was the thought of this work locally? The following communication from the Board of Education in 1918 will show, when Dr. Pearl, whose two sons were already in the service, applied for a leave of absence, the Board took the following action:

WHEREAS, The Y. M. C. A. has offered Principal Isaac Pearl, of Sandy Hill School, an important post in France, and

WHEREAS, Principal Pearl has filed with this committee a request for leave of absence for the duration of the war

*Therefore be it Resolved*, That it is the judgment of this committee that Dr. Pearl should be commended for his patriotic zeal, but that the need for Dr. Pearl's services at Sandy Hill School at this time are too great to justify this Board in granting a leave of absence.

*Be it Further Resolved*, That a committee of three be appointed to convey to Dr. Pearl the sentiments of this committee on the subject and to persuade him to continue his very valuable services at Sandy Hill School.

One of the most difficult propositions for him to solve as a citizen confronted Dr. Pearl in a recent election. One of the candidates for Mayor was up for reelection while his opponent was a prominent school principal, nominated by Dr. Pearl's own party. During his first term the Mayor had put into operation one of the most liberal salary schedules for teachers in the entire country. He had under construction or plans drawn to replace practically all of the out-of-date school buildings, and had shown himself alert and liberal in all measures pertaining to education. His work was only partially completed. He was a strong advocate for all those measures for which the teachers had been contending. Aside from the desire of the other party to get into office there was no reason for displacing the man in power. What about the future? Here was a man who had made an ideal record in support of liberal educational measures. How could school men go in the future to practical-minded politicians and ask them to back the schools unless the school forces showed appreciation of officials who did do their duty by education? What became of the boasted superiority of educated citizenship, if for purely partisan politics, they were to defeat an official who by every right of high-grade service deserved reelection? To be fair, Dr. Pearl sent a questionnaire on school matters to the candidates which the opponent of the Mayor declined to answer on the ground that pre-election promises were no good anyhow. As a duty to the children, in opposition to his own party, Dr. Pearl came out strongly for the reelection of the Mayor, and he won by a large majority. Nevertheless, it brought down bitter denunciation upon Dr. Pearl by some of his associates, and he was expelled from one of the party clubs. Still he feels he was a winner in that he could show that to be a free man and a citizen means more than to be a partisan merely. Further, he has found that in showing the courage to do what he felt to be right, he has won the respect of even political opponents. Dr. Pearl has demonstrated there is a wonderful opportunity for active, constructive citizenship as a community leader open to the school principal. All that is needed is the industry, tact, and good sense that spell success in other lines of work.

When teachers generally have the "aggressiveness" to claim their own and the "shamelessness" to dare to speak the truth and do the right we shall have the "new and better world."

PART II  
THE PRINCIPAL AND THE TEACHER





## CHAPTER V

### THE IMPROVEMENT OF INSTRUCTION THROUGH SUPERVISED STUDY

W. Q. BROWN

*Principal of the Kennedy School, Cincinnati, Ohio*

TURN Students Loose to Read"; such was the headline of a recent newspaper article reporting a Cincinnati address of Dr. Alexander Meiklejohn, former president of Amherst College. To quote from this address: "The college of tomorrow will come when the teachers stop trying to instruct the students, and instead give them a chance to learn, to study, to think for themselves—turn them loose in the great fields of knowledge to come into contact with the master minds of the world by reading and understanding their thoughts as expressed in their books." This quotation would seem to indicate that the appreciation of supervised study is at last penetrating even to the colleges, hitherto the stronghold of lecture and quiz. In the elementary school during the last decade, the promotion of supervised study and the growth of interest in it has been one of the most marked factors affecting educational administration and method. The two experiments herein related describe the efforts of two consecutive years to improve the instruction in our school by emphasizing methods of study, and the efforts to lead our teachers to do what was so well put by Dr. Meiklejohn as the duty of college teachers, "to stop trying to instruct the students and give them a chance to learn, to study, to think for themselves."

The Kennedy School is a Cincinnati suburban school of four hundred pupils, coming from homes of the middle class chiefly; with building and equipment modern but not extraordinary; and with teachers of average preparation, though we like to believe, of more than average coöperation and devotion.

The plan for the first year grew out of a seminary course at the University of Cincinnati, conducted by Professor Hall-Quest, in which the author of this paper undertook the construction of a standardized test to measure the ability of pupils to study. This combination of supervised study and standard testing, embracing these two highly influential factors of teaching method, made the problem doubly interesting; and it was not difficult to secure the most hearty coöperation of the teachers concerned in these experiments.

After many preliminary experiments, it was determined to test in grades seven and eight four major factors of study. This is the final form in which the test was given and the directions for giving it.

### TEST OF THE ABILITY OF PUPILS TO STUDY

To be given in four successive days, using study periods of forty-five minutes each: the classes to be supplied with the geography text (The Natural Advanced Geography then in use in Cincinnati); the teacher to have the questions for each day ready on the board at the beginning of the period.

#### FIRST DAY

1. What reasons can you give for learning about the animals of Africa?
2. Name some industries of Africa important to the United States and tell why each is important.
3. Make a list of five topics that a man planning to build a new railway line across Africa would need to study most.
4. Give the best reason you can for studying Africa.

#### SECOND DAY

5. Arrange four or more topics which cover all your geography text tells about the Sudan.
6. Write in three brief sentences a description of the surface of Africa, after carefully reading what your book gives.
- 7, 8. Imagine a railroad completed from Cairo to Cape of Good Hope. Prepare four topic headings for a friendly letter of four paragraphs describing a trip over the entire road. Try to divide one of these topics into three or more subheadings.

#### THIRD DAY

9. Make a list of books, magazines, or other sources for finding out about Africa. Indicate page numbers if you can.
10. How would you help your classmates really to understand how big Africa is?
11. Compare each of the following with something in America that is similar: Delta of the Nile; Victoria Falls in the Zambesi River; the Suez Canal.
12. How could you find without a geography the following:
  - a. Meaning of the word rhinoceros.
  - b. Pronunciation of the word Rhodesia.

- c. Product and industries of Egypt.
- d. Area and population of Tripoli.
- e. Railroad lines in Africa.
- f. Manners and customs of the negroes.

#### FOURTH DAY

13. State in a sentence one of the most important changes which you expect to occur in Africa within fifty years.

14. Copy from your geography some statement about Africa likely to be wrong fifty years from now.

15. Copy the one of these two statements which you think most correctly states the effect of the World War on Africa:

(a) The Germans won some colonies in Africa which the natives claimed.

(b) Germany lost her colonies in Africa.

16. Cecil Rhodes was an Englishman who won great wealth in Africa. Nearly fifty years ago he planned a great railroad from Cairo to the Cape of Good Hope. Show whether this was wise or foolish.

#### DIRECTIONS FOR GIVING THE TEST

The sixteen questions in groups of four are designed for class periods aggregating 180 minutes, apportioned either in four periods of 45 minutes each or six periods of 30 minutes each. These time limits should be strictly observed. The tests should be given on successive days in the order in which they are numbered with *no previous announcement*. They should be placed upon the blackboard at the beginning of the period.

Pupils should have free access to all the text and reference books available in ordinary class work. They should not receive aid from each other or from the teacher. Encourage independent and thorough work. Let the pupils know that this is a test of their ability to study and that their work will be compared with that of other schools.

Answers should be correctly numbered, written in ink on one side of 8x10 ruled paper, each pupil's papers pinned or clamped together, marked with his name and grade, the city and school. Absence of a pupil on certain days of the test should be indicated on his paper. Send all papers to the address given below.

This is not a geography test; but is simply a test of the ability of a pupil to study, the subject matter being selected because it is likely to offer freshness and interest.

Each day's work is planned to test a different group of the factors of study, as follows: *First*, To provide specific purposes and make use of ideas; *Second*, The organization of ideas; *Third*, The supplementing of thought, or making of mental cross connections; and *Fourth*, Judging of the soundness and general worth of statements, and provision for a tentative attitude toward knowledge. Therefore, this test may be given profitably at any time, without waiting until the class is ready to study Africa.

Through the kindly coöperation of a number of principals and teachers the above test, under conditions specified in the directions, was given in eight Cincinnati schools, some from the suburban and some from the down-town sections of the city. Tables 1 and 2 exhibit the results. The grading and scoring was done in accordance with these rules:

*First*, The child must receive due credit for his view point. As an illustration, in answering the first question the child's natural interest in animals is accepted as a valid reason for studying them.

*Second*, Errors in English, spelling, etc., must not be considered. This is a test in thinking, and if the thought is apparent it receives credit without regard to the form of expression.

*Third*, No attempt is made to subdivide values given to answers beyond this four point scale; excellent, 5; good, 4; poor, 2; failure, 0. Thus, since there are sixteen questions, 80 represents a perfect score.

TABLE 1—EIGHTH GRADE. FIVE SCHOOLS. DISTRIBUTION OF SCORES OF ALL PUPILS COMPLETING THE TEST

	School A	School B	School C	School E	School F
Number completing the test.....	26	47	37	21	22
Lowest score.....	40	19	35	26	19
Median score.....	66	55	55	53	50.5
Highest score.....	75	72	71	75	67
Lowest quartile.....	40-57	19-45	35-49	26-43	19-44
Second quartile.....	57-66	46-55	49-55	44-53	45-50
Third quartile.....	66-69	55-61	55-59	53-61	51-58
Highest quartile.....	69-75	61-72	60-71	62-75	59-67

Eighth grade median (from a total of 127 cases)..... 52.7



Tables were also prepared to show individual score of each pupil and copies sent to the coöperating schools with key to

TABLE 2—SEVENTH GRADE. SIX SCHOOLS. DISTRIBUTION OF SCORES OF ALL PUPILS COMPLETING THE TEST

	School A	School D	School E	School F	School G	School H
Number completing the test	24	40	20	26	32	49
Lowest score. . .	20	16	39	20	31	17
Median score. . .	53.5	51.5	54.5	43.5	57	47
Highest score. . .	77	74	67	63	73	65
Lowest quartile.	20-37	16-45	39-47	20-35	31-43	17-39
Second quartile.	37-53	46-51	48-54	35-43	44-57	40-47
Third quartile. .	53-63	52-60	55-61	44-52	57-62	47-51
Highest quartile	63-77	61-74	61-67	53-63	63-73	52-65

Seventh grade median (from a total of 191 cases) . . . . . 48.6

enable teachers to follow up with individual attention. Also a table showing distribution of scores by factors of study tested. Thus School G made an extraordinarily high score in regard to the third factor tested, supplementing the thought; indicating either better library facilities or better training in the use of what they had.

An important supplement of the test was the list of type answers as evaluated for use in marking the papers of any pupil. Not less than ten typical answers with values ranging from 5 to 0 were selected for each question. A single illustration must suffice.

Typical answers for question No. 1. What reasons can you give for learning about the animals of Africa? (Keeping in mind that this is a test of ability to provide specific purposes and make use of ideas.)

5. There are very many interesting and curious animals in Africa. Most of them have something which is valuable to the rest of the world. There is a lot of hunting done in Africa.

5. The African animals are queer and make study interesting, and some useful things come from them.

5. They are the kind of animals we are acquainted with in our Zoo. Some of them are very large and dangerous.

(These answers contain at least two good reasons each and no incorrect statements.)

4. Because they are the wildest animals and are very peculiar.

4. To increase your knowledge; find how many different kinds of animals there are; find a comparison of its animals to those of South America.

4. We like to know how all these fierce animals live and what they eat.

(These answers contain inaccuracies or give not more than one really valid reason.)

2. To compare the animals of Africa and the U. S.

2. To see what animals they use for commerce.

2. More wild animals are found in Africa than in any other grand division.

(These answers show willingness on the part of the pupil to accept unlikely or inadequate reasons, or purposes far from specific.)

0. Read the geography and what it says about the animals. Read other books about Africa. Get pictures of them.

0. Because there are so many of them.

(Answers failing entirely to give reasons or purposes.)

This selection and evaluation of answers was the work of several groups coöperating with the author: (1) The seminar group mentioned above. (2) A group of experienced teachers and senior students in the University of Cincinnati, Miss Frances Jenkins, assistant professor of education, directing. (3) A number of the teachers of the upper grades in the Kennedy School. These typical answers were evaluated (1) by process of analysis, (2) by composite judgments of the group.

It is not the purpose of this paper to discuss the validity of the test in general but to recapitulate the steps of the experiment and to suggest some of the values resulting.

*First.* The preliminary study directed by the principal to determine the form which the test should take involved the giving of a large number of lessons in supervised study in the upper grades of the Kennedy School and the discussion of results with teachers and sometimes with pupils themselves. Interest in the whole topic was thus obtained as well as the judgment concerning the final form of the test.

*Second.* The selection of the factors to be tested involved careful study of the literature available. No pretense is made that all the factors of study were measured. The important factor of memorizing was omitted altogether, because it was felt that most teachers are constantly measuring this factor. It was hoped that the test might be simple enough to be practical, and at the same time prove a stimulus to good teaching. This was the basis of selection finally adopted. Fully to justify the choice would demand an ample volume of itself. Current educational literature is replete with emphasis upon the four selected. The first factor embodies motivation. The second calls for the prime essential of what has well been termed reflective thinking. Parker's excellent discussion in his *Methods of Teaching in the High School*, makes evident the place and importance of this factor in study. The third factor tests the pupil's ability in study to supply initiative. Certainly no ability is more fundamental to success in American life. The fourth factor is judgment, the balance wheel of mental life. An excellent treatment of the importance of the these factors is given in McMurry's *Elementary School Standards*.

*Third.* The actual giving of the test in a number of Cincinnati schools secured the interest of that number of teachers in a practical piece of supervised study.

*Fourth.* The interest aroused and the helpful activity of the various groups that coöperated in marking the papers and evaluating answers gave impetus to the work.

We recognize the limitations of this test. The rate of speed in study is no doubt an important factor in the ability to study; and speed is not measured here. True, a time limit is assigned, but one generous enough, it is hoped, to allow good results from all except the exceptionally slow worker. Also this test was limited to grades seven and eight, though it could easily be applied to grade six or nine. Finally the standards fixed are but tentative, for only a part of the school children in a single city were measured.

The great advantage to the principal in such a piece of work lies not in the possibility of emulating results in some other school. It lies in the opportunity to stimulate instruction. It may be made an opening wedge toward adoption of supervised study and attention to study habits as a vital part of teaching. It reveals individual weaknesses in the power to study, or the neglect of some major factor of study in any one school. Finally, it may impress teachers with the fact that while pupils may possess native ability to study, that ability is far from perfect, and therefore needs training and direction.

Our second effort to develop supervised study in the Kennedy School was even more fruitful. This second year of effort was based upon a course in the University of Chicago, given by Professor Morrison, dealing with the Mastery Technique of Learning. Articles by Professor Morrison published in the *School Review* for January, February, and March, 1921, give a fuller interpretation of the method than may be attempted here. It is founded upon the belief that the ordinary "lesson hearing" type of teaching is worse than futile. It is not so much a theory as a demonstration that boys and girls can master units of instruction, appreciation, or skill to a degree that may be fairly designated as mastery; that this can be done by those pupils usually called slow, as well as by the bright group. The responsibility is upon us as teachers to be satisfied with no less, and this responsibility may best be met by developing fundamental study habits. The special technique by which he proposes to develop these habits is designated by Professor Morrison as the Mastery Technique.



At the suggestion of the writer, who had found Dr. Morrison's course in Mastery Technique very stimulating, the six upper grade teachers of the Kennedy School and the principal organized a seminar class for the purpose of experimenting with the Mastery Technique in grades four to eight, inclusive. Permission was secured from Superintendent Condon to have this work carry professional credit equivalent to an extension course at the University of Cincinnati. Each one of the group was to teach at least one subject for the entire year, practicing as closely as possible the principles laid down by Dr. Morrison in his discussion of this method. The following range of subjects was included: Eighth-grade history, eighth-grade geography, seventh-grade geography, sixth-grade history, fifth-grade geography, fourth-grade reading, and eighth-grade arithmetic.

The group met frequently for comparison of progress, difficulties, and results. In addition, the principal, acting as teacher of the group, applied the Mastery Technique in directing the work of this group of teachers. That is, he attempted to present to the other six this course in the Method of Teaching in exactly the same way that he hoped each of them would exemplify it in teaching children the selected subject. In other words, it seemed that it should be as profitable for teachers to study pedagogy by the Mastery Technique as for boys and girls to use this method in geography and history. Results were both interesting and profitable.

The study habits which we stressed in this work: (1) The assimilation of the spoken word; (2) the habit of intensive and extensive reading; (3) the memorization of significant elements; (4) the habit of sustained attention. The fact that seven of us throughout the school year were stressing these four study habits should certainly have brought some gain in this direction. While we did not attempt to measure the gain accurately, yet in the final summation of our experience we were a unit in the conviction that the effort had been eminently worth while.

Two or three other points are worth noticing. This experiment established in the minds of both pupils and parents a new standard of achievement in school subjects—namely, mastery, not simply a passing mark. For the new method called forth considerable interest in the homes. It also broke up our classes into real study groups of varying ability, more completely than had ever occurred before. This technique made it impossible to keep the pupils studying as a unit much of their time. Those who have tried to introduce supervised study will recognize this



as a desirable but difficult step to take. It brought into use more completely than ever before all the equipment of the school available for helpful study. Thus the supplementary readers in geography had never been so much in demand, for there is abundant opportunity in the use of this technique, which eliminates so much of lesson hearing, to give the child time for real study.

It may seem that the factors of study emphasized the preceding year were lost sight of during this experiment. This is only apparently the case. Our attempt to master this particular technique involved the careful study of the philosophy underlying the formation of proper study habits, and we found that the factors of our previous study were intimately and essentially related to those we were stressing.

There were some mistakes made. This technique, so admirably demonstrated by Professor Morrison for junior and senior high schools, needed much adjustment to fit the organization and pupils of elementary classes. We were inclined to select units of instruction too large for satisfactory work. We were convinced at the end of the year that while in the eighth year the entire history or geography for the year could be grouped into a few units—six to ten perhaps—in grades five and six a much larger number of units was desirable. We also learned to simplify certain steps of our procedure for the younger children. We were able to devise a satisfactory substitute for what Dr. Morrison calls "excess credit," which our organization did not permit us to use in the way he used it.

On the whole we are convinced that the Mastery Technique has come to our school to stay and that no more profitable experience in the improvement of instruction has come to us.

These two years afforded an interesting approach through supervised study to the principal's great task, the improvement of instruction. The program was not abandoned last year, though unfortunate circumstances outside the school prevented much effort in this direction on the principal's part. For this year an attack is being made on another phase of supervised study, for the field is a wide one.

A beloved former superintendent of the Cincinnati schools, Dr. F. B. Dyer, in a forceful address on "Waste in Education," named as the first factor of such waste, *unstimulated teaching*. To the elementary school principal comes daily the opportunity to stimulate a group of teachers, usually loyal and devoted to a high degree. In the hands of the elementary principal lies the remedy for the first waste in education, unstimulated teaching.

# HABITS OF STUDY

ARTHUR S. GIST

*Principal, B. F. Day School, Seattle, Washington*

DESIRABLE and effective habits of study are essential in attaining many of the educational objectives. What are some of the desirable habits, how do the pupils study when unsupervised, and how may their habits be improved, constitute a problem for investigation and experimentation, which have been under way in our school for some time.

## LOCAL CONDITIONS

Many conditions at the B. F. Day School favor such an undertaking. The constituency is largely composed of home owners who have lived in the community for many years, which means relatively few changes in the school enrolment of 950 pupils during the year. The school is operated on the platoon plan, which permits all home-room teachers an opportunity for supervised and directed study. The personnel of the teaching force is most favorable for such studies, as it represents varied scholastic and professional training, wide experience, mature judgment, and an alertness, aggressiveness, and interest which carries the work forward aggressively and scientifically. This enthusiasm of the teachers was especially shown in their eagerness to read and to apply the reference lists which were given them.

## DESIRABLE POWERS, ATTITUDES, AND AIMS IN STUDY HABITS

To secure the coöperation and assistance of the teachers, each was assigned one or more subjects upon which to report effective habits of study in these subjects. Each was requested to draw only upon her own experience in making up the lists. These were modified and compiled by the writer and a copy of the compilation was sent to each teacher for handy reference.

### I. General

1. To have the power to concentrate
2. To have a clear understanding of the assignment
3. To have an interest in the assignment
4. To have independence
5. To possess mental alertness
6. To have the ability to determine reasonable time limits, and to confine himself to them
7. To have the ability to analyze weaknesses and progress.

## II. Specific

### 1. Reading

#### (1) In research

- a. To possess accuracy and speed in finding material
- b. To possess the ability to evaluate material
- c. To be able to retain definite ideas

#### (2) In appreciation

- a. To have the ability to judge worthwhile material
- b. To possess the ability to read worthwhile material for real pleasure
- c. To possess the ability to see beautiful descriptions and phrases

#### (3) In speed

- a. To possess speed without sacrificing thought

#### (4) In oral work

- a. To possess pride in well-spoken English
- b. To possess the ability to secure good listeners

### 2. History, geography, and civics

- (1) To possess the ability to imagine the situations given on the printed page
- (2) To have the ability to organize material.
- (3) To have the ability to evaluate such material and to apply it to the assignment
- (4) To have the ability to prepare the material for presentation in a socialized recitation

### 3. Language

- (1) To have the ability and the desire to use good English
- (2) To have the ability of self-correction
- (3) To have the ability to use the dictionary effectively
- (4) To possess the ability and the desire to enrich his vocabulary

### 4. Spelling

- (1) To have the ability to visualize all words used in spelling
- (2) To have the ability to sound phonetically all spelling words
- (3) To have the ability of self-correction
- (4) To have that type of skill in spelling that will tend to make correct spelling automatic in all written work

### 5. Arithmetic

- (1) To have the ability to use accurately and rapidly all processes involved in the problems
- (2) To have the ability to imagine all the conditions in the problems
- (3) To have the ability of self-correction
- (4) To have the ability to estimate results
- (5) To have the ability to originate problems
- (6) To have reasoning ability

The teachers of the fifth, sixth, seventh, and eighth grades, and the special teachers of spelling and reading were chosen for this study, as it was thought more tangible results could be secured. The home-room teachers were given but one subject, as concentration of effort is likely to result in more effectiveness. Assignments were given the pupils as usual, then each teacher and the principal observed carefully how the pupils proceeded

to prepare the assigned task. When the method of study was indefinite, the pupil was questioned as to his method.

### OBSERVATIONS OF PUPILS' METHODS OF STUDY

#### GEOGRAPHY—5B

Thirteen pupils read the entire lesson through, then looked at the questions in the blackboard assignment, and answered them. Seven pupils answered each question one at a time. Two pupils read the entire assignment, then studied the lesson. Thirteen pupils said their minds did not wander. Nine pupils said their minds did wander.

#### GEOGRAPHY—5A

Sixteen pupils read the lesson entirely through, and then went over the questions. Fifteen pupils read each question and attempted to find the answer. Four pupils read one paragraph and then answered the questions in the assignment. Sixteen pupils said their minds did not wander. Nineteen pupils said theirs did.

With these fifth-grade pupils a very determined effort was made to have the pupils thoroughly understand the assignment in advance, and to keep definitely in mind certain phases of the assignment while preparing the work. Later observations showed us rather conclusively that considerable headway had been made in having these pupils study with a definite purpose in mind.

#### HISTORY—7B

*Methods of study used by the girls*—Three girls studied with very poor concentration, their attention being easily distracted. All of the girls compared the material in the textbooks with that in the reference books. Eight wrote out too completely their preparations. Four wrote out their answers completely. Four outlined their answers. One was unable to find the material and did not use the index.

*Methods of study used by the boys*—Five made careful study of the pictures and maps. One spent most of his time aimlessly looking at the pictures. One studied the map carefully, tracing the coast line of New England with his finger. Eight compared the material in two books. Two used the dictionary. One asked for the meaning of a word in its content. One used reference



material which was too difficult. In asking the pupils how they prepared their lessons, the following answers were given:

"I read each paragraph three times and then asked myself questions on the assignment." "I looked at the marginal topics, found what I wanted, and then read the paragraph." "I asked myself questions on the assignment as I read." "I read the entire chapter and then asked myself questions." "I try to imagine myself as one of the Puritans, as I read my history." "I read reference histories to compare what different authors say about the same topic." "I read my lesson, then looked at the assignment to see if I had the important points learned."

Careful observation of the study habits eight months later showed that these pupils were preparing their lessons more thoroughly, because of thoughtful discrimination in reading their history, in comparing the material of the text with that of the reference material, in keeping the assignment in mind during the study period, and in permitting fewer distractions.

#### ARITHMETIC—7A

Six mistakes and errors in processes with the problem of 14 per cent of \$2,400; several used division as the process. With the problem 3.8 per cent of 2,500 pounds, the correct process was used, but the decimal point was incorrectly placed, .38. Three made mistakes in reading the problem.

#### CIVICS—8A

The pupils were given a definite assignment as to the community's efforts to protect life and property.

*Methods of study used by the boys*—Seven took notes which were of a worthwhile nature. Only three out of thirty-five did not seem to concentrate well.

*Methods of study used by the girls*—Fifteen girls took notes, but upon examination it was found that the notes were too full, hence definite instruction was given as to how notes should be taken in preparing a lesson of this kind.

Subsequent observation shows that the pupils of the eighth grade have improved considerably in this method of study. Several pupils at first read the paragraphs and then tried to repeat them. This method while in quite general use with the girls, was to a large extent eradicated by instruction as to outlining the main and sub-topics, and then the effort made to show the relation between these topics.

## TRAINING IN CONCENTRATION

Pupils in the upper grades are mature enough to discuss certain habits of study with profit to themselves as well as to the teachers. One phase of this discussion hinged upon the question of close concentration. It is doubtless true that it is almost an impossibility to keep the human mind from some wandering, and that the period of exhaustion is very short with the untrained student, yet training along this line will bring about marked improvement. As an aid, pupils were asked to record the number of times they caught their minds wandering from the lesson assignment and then at the close of the study period to indicate what had distracted their attention. The number of times they had to bring their minds back to the task in hand varied from one to ten times, the boys having fewer distractions than the girls. Following is a list of some of the distractions given:

"I looked at some other girl."

"Another girl hurt her knee, and I was wondering if it still hurts."

"I saw Miss —— looking at some one and I wondered what was the matter."

"I heard a noisy street car."

"My pencil dropped."

"Some one coughed."

"I thought of the party Saturday night."

"I thought of going to Kirkland Saturday."

"I heard another girl studying out loud."

"Mother is not feeling well, and I wondered how she was feeling."

"I thought of a good book I am reading."

"I thought of the girls' baseball team."

"I thought of what I am going to do after school today."

"I got something in my eye."

"My eyes watered."

"A train whistled."

"A pupil walked through the hall."

"I thought of the music test which I will have on Saturday, when several pieces must be memorized."

"I thought of my bicycle."

"I thought of the ball game at the Stadium Saturday."

"I stopped to get paper."

"I couldn't spell a word."

"I thought of my dog."

"I looked at the clock."

"I saw a bee on the window."

"I got tired."

It is interesting to note in this connection the frankness of the pupils, as well as their effort at concentration. The number of distractions during the study period have been cut down considerably as the year's work has progressed.

## LESSONS ON THE USE OF THE DICTIONARY

## RAPID LOCATION OF LETTERS

Many pupils in the upper grades have difficulty in finding words in the dictionary, because of a hazy conception of the order of the letters in the alphabet, in fact the occasional pupil is unable to name the letters in their order. A drill on the rapid location of the letters is thus often necessary. The pupils are asked to open their dictionaries as near a certain letter as possible, thinking beforehand as to its place in the alphabet. This is repeated until all are reasonably proficient.

## RAPID LOCATION OF WORDS

After a pupil has found the section of the dictionary containing the first letters of the word he wishes to find, he often wastes considerable valuable time, because he does not know when he has found the correct page. He often has to be told the use of the "guide" words on the top of each column, not knowing that the word at the top of the first column is the first word on the page, and that the word at the top of the second column is the last word on the page, and that by observing the first two or three letters in these "guide" words he can see at a glance if his word is on the page. Pupils often have been observed running their eyes and fingers up and down the page when they are several pages away from the word they wish to find.

Drill upon the use of these "guide" words, or "guide posts" as we sometimes call them, is given until no pupil is seen looking in the context when he is on the wrong page.

## SHADES OF MEANINGS

Another valuable exercise has been to discriminate between the meanings of words which have only a slight difference in their meanings, yet cannot be used synonymously. Such words as trade, occupation, profession, position, and job are taken. They are required to find each word as quickly as possible, using the drill exercises on finding the words which have been given them in the preceding exercise.

## PRONUNCIATION OF WORDS

A drill exercise is given in working out the correct pronunciation of words which are in common use, yet often mispronounced. Such words as maintenance, gnarl, deaf, and film are used. Each

pupil is required to find each word, and then the necessary points in working out pronunciations are discussed. Such discussions bring out the following points in the order listed: (1) Syllabication; (2) accent, and (3) marking of letters.

In the word *gnarl*, discussion brings out the sound of "a" with two dots over it. The pupils are asked to find how such an "a" is sounded. In most of the seventh and eighth grade rooms, before such an exercise is given, it has often been found that only three or four pupils realize that such sounds are given at the bottom of the pages along with the context. With the word *deaf*, the pupils find two pronunciations in some dictionaries, and but one in others. The dates of the publications of dictionaries are then compared, and it is suggested that *dēf* is evidently going out of use.

#### PRONUNCIATION OF PROPER NAMES

Such words as *Essex*, *Agassiz*, *Albania* are given to the pupils one at a time. Very few of the pupils in the upper grades know that there is a special section for such words, so that the majority of them look generally through the main context for such words. They are also surprised to discover that such dictionaries as Webster's Elementary School Dictionary give in a concise form data concerning these proper names.

#### USE OF PREFIXES AND SUFFIXES

The words *polygon*, *polytechnic* are given to the pupils simultaneously with the request that they discover any similarity in the meanings of these words. A few have found that "many" appears in the meanings of both contexts. They are then asked to find any similarity about the words, "poly" of course being readily seen. It is then suggested that they find the meaning of "poly," which is not found in the main section of the dictionary. Again we find but a few of the pupils having any knowledge of a section containing prefixes and suffixes, and the discussion which follows brings out the origin of the language. In this exercise, such words as *picturesque*, *childish*, and *motor-meter* are used, the pupils being asked to work out the definitions by using the meanings of the prefixes and suffixes.

#### USE OF FOREIGN WORDS AND PHRASES

Such words and phrases as *vive le roi* and *vox populi* are given to the pupils much as the other material was, but here



again most of the pupils go at once to the main section of the dictionary, not knowing where such words and phrases could be found. The letters L, F, and G are discussed, which give another opportunity to trace out the origin of our language.

#### PARTS OF SPEECH

The word "produce" was given to the pupils to find the correct pronunciation. Two, of course, were found, which brings on a discussion of the abbreviations used with the parts of speech, and that the part of speech often determines the pronunciation.

#### OTHER FEATURES

As an outside assignment, the pupils are often asked to make a list of other features which they can find either in their school dictionary or in other editions at home. Following is a list which they brought to class:

History of the English language.

Illustrated section.

Colored plates.

Flags of all nations.

Tables of weights and measures.

Foreign money.

Common abbreviations.

Special vocabularies used in golf, baseball, football, navy, music, photography, radio, the automobile, et cetera.

The essential features of the use of the dictionary are introduced to the pupils inductively so that they may more easily realize these uses. These naturally require considerable drill and attention to fix adequately the dictionary habits.

#### READING HABITS IN THE UPPER GRADES

To approach the goals of good reading habits, it is necessary to formulate definite plans. One of the first plans attempted has been that of stimulating a real desire to discover information by reading and to develop initiative of thinking. We have planned to have the pupils approach reading material with a real desire to find out something useful or of interest. An attempt has been made to have the pupils characterize material upon the basis of interest before it is read as a whole.

Recent reports from the pupils indicate some of the following methods are being used by them:

Who is the author?

Have I read any of his writings?

What are the chapter titles?

Do the illustrations interest me?

Is it chiefly conversational or descriptive in style?

Has the preface anything to indicate the nature of the material?

When was it written?

Where did the author live and where was the scene laid? (If a narrative.)

Is it written in the third person?

Most pupils indicate a preference for the third person, as narratives written in the first person make it difficult to properly characterize one of the main characters.

Is the vocabulary within my understanding and interest?

Does it have much dialect?

The pupils indicate that they do not like much dialect in what they read.

Is the book popular, as indicated by the loan stamps?

Is it about animals?

Is it about outdoor life?

Is it humorous?

By reading certain snatches, do I find that it may interest me?

Can I find some technical information about which my teacher and principal know but little?

A recent project in electricity brought out the fact that a child may have a background for his reading and certain types of information which his teacher does not possess. Frankness on her part is often a stimulus to the pupil to give information beyond the teacher's experience.

Is the print too small?

What the book has which leaves a more or less lasting impression was also investigated and reported upon by the pupils, with considerable freedom and frankness. Following are some of the statements given by them:

1. The information must be correct.
2. No impossible situations must be created.
3. It must not be an exaggeration.
4. The characters must be such that I can admire most of them.
5. The plot must have real interest, yet I would prefer the plot to be weak and the characters strong, than the reverse.

The point was clearly brought out that ideals are acceptable, if no sermonizing takes place. The effort to ascertain the nature of the reading material in advance and to read with an inquiring attitude has been attempted, and from the above reports, it seems to have been quite successful. This advance canvass for informational as well as for pleasurable reading is of much value to the student, when done under expert guidance, as it helps to form proper reading habits.

## SUMMARY OF METHODS USED TO IMPROVE STUDY HABITS

1. Fruitful discussions have taken place with the pupils as to effective methods of study. Demonstrations have been given to show them concretely, how to study effectively, and why such methods should be developed.

2. The following questions have been put to the pupils as being worthwhile to keep in mind while studying:

a. How long can I study a lesson with no other thought crossing my mind?

b. How many times during a study period do I find my mind wandering?

c. On what subject do I find it the easiest to concentrate? The hardest?

d. During what periods of the day do I find it the easiest to concentrate? The hardest?

Discussions with the pupils after several months of instruction along these lines reveal to us that many of these points have been kept in mind by the pupils, and that it has been a benefit to them in their study habits.

3. The lesson assignments have been carefully checked during the supervised study periods to ascertain their clear understanding by the pupils, and as a check on their reasonableness in length. Efforts have been made to have the pupils take an interest in their work, by having the assignments as motivated as possible. Often the pupils have participated in the making and selections of the assignments, which has made it possible for them to concentrate rather easily.

4. The correct use of reference material has been carefully studied. Some of the pupils do not know how to find relevant material; others attempt to use material which is too difficult. Carefully planned lessons have been given on the effective use of the dictionary.

5. Quotations on effective means of study have been placed on the blackboard by the teachers, and copied in permanent form in the note books by the pupils. Some of these were adapted from Whipple's list in his book, *How to Study Effectively*.

6. An effort was made to have effective habits carried over into the home study and to have the pupils discuss with the parents the school's study habit plans.

7. The physical condition must be as favorable for proper study habits as possible. There should be no class reciting in the same room that a child is attempting to prepare his lessons. The reference material should be close at hand and somewhat canvassed in advance that the child loses as little time as possible in hunting for material. The physical conditions of the room should be such that proper study is possible. The physical condition of the pupils, such as his eyesight, his general health, et cetera, should also be conducive to study properly.

8. In all supervision, attention has been constantly directed toward the pupil's manner of study.

9. Emphasis has been placed upon power, rather than upon the amount of content covered.

## SOME GENERAL OBSERVATIONS

1. Boys take fewer notes than girls.
2. Boys are less distracted than girls.
3. It is very easy for teachers to become so engrossed in the recitations, the tests and in the results of their efforts in general, that they neglect the methods used by the pupils in preparing their work.

While the study habits of the pupils seem still to be far from the desired goals, we feel that we have made some headway, and that the pupils have been greatly benefited by attention to this phase of instruction.

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## CHAPTER VI

### THE SUPERVISION OF DRILL WORK IN ARITHMETIC

EDWARD WILDEMAN

*Principal of James Shields School, Chicago, Illinois*

**A**RITHMETIC in the elementary school is primarily and pre-eminently a tool-subject; and it is a truism to say that no adequate skill in the handling of a tool can be attained without a great deal of practice with that tool. Even the most ardent advocates of the project method admit, I believe, that in order to teach arithmetic successfully we must have a goodly amount of those repetitive exercises, known by the unlovely name of drills, by means of which connections, or bonds, between arithmetical situations and responses are established.

The psychology of drill is now pretty well understood, and so much has been written about it in recent years that it is not easy today to say anything new on the subject. But apparently something still remains to be done in the way of putting the findings of psychological research at work in the procedures of the ordinary classroom, and this is undoubtedly the province of the principal as supervisor. It is clearly his duty to see to it that random, haphazard adding, subtracting, multiplying, and dividing be replaced by well-planned exercises that will provide the right amount and proper distribution of practice all along the line.

In the supervision of drill work the first essential, I think, is to have a clearly conceived, logically arranged plan in accordance with which the work is distributed through the grades where it is needed. This plan should be understood by all the teachers involved. The third-grade teachers should be thoroughly acquainted with the methods, devices, and materials used in the second grade. The fourth-grade teachers should know exactly what has been done in grade three. Each teacher is thus enabled to build intelligently upon the foundation laid in the previous grade. Such unity of spirit, coördination of effort and coherence of method are more needed in the teaching of arithmetic, I believe, than in the other subjects of the curriculum.

The second essential is to furnish an abundant supply of drill material which the teachers can use with a minimum of trouble

and the greatest economy of time. The teacher should not find it necessary to be forever writing examples on the blackboard, nor should the children spend valuable time in copying long arrays of figures day after day. In addition to this it is very desirable, I think, to have the drill material arranged as far as practicable in units to which a time limit can be assigned. This will enable the teacher to measure the progress of her class, and the principal to compare the work of different rooms, in a much more satisfactory manner than by merely giving a standard test at the close of the semester.

The purpose of the present article is to describe some of the methods and devices which we are using in the Shields School for drill in the fundamental operations with integers and common fractions. In doing so I shall restrict myself to mention only such devices as have not to my knowledge been already described by others. The bibliography of the subject has become very extensive. The Second Yearbook of our Department contains two articles, one by Merton and Banting, on "Remedial Work in Arithmetic," the other by Brueckner and Souba, on "A Diagnosis Sheet in Arithmetic," both of which are full of excellent suggestions, and may be expected to aid effectively in improving the teaching of arithmetic in our schools.

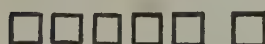
I shall give a brief account of some of the devices and materials used in the second, third, fourth, and fifth grades. Discussion of such drill work in decimals, percentage, approximations, and problem analysis as is given in the upper grades must be omitted for lack of space.


## SECOND GRADE

Arithmetic drill in Grade 2B—which in this city means the first half of the second grade—is carried on during the last ten weeks of the semester. It is, of course, understood that drill begins only after an abundance of concrete number experiences with a great variety of objects has been furnished. The drill consists in fixing the addition combinations whose sum does not exceed 10, and the subtraction combinations in which the minuend is not more than 10. These are the following:



A helpful device, upon which we place much reliance in this work, is a chart of *number pictures*, upon which the numbers from 1 to 10 are represented in the manner here illustrated.



$1\frac{3}{4}$  inches square, and are placed  $\frac{1}{4}$  inch apart, except that in the numbers from 6 to 10 there is a space of  $\frac{3}{4}$  inch between the fifth and sixth. Smaller flash cards are also provided, each holding one number, pictured as on the chart. Through this arrangement each number stands out clearly with an individuality of its own, so to speak, and the larger numbers, 6, 7, 8, 9, and 10 are as distinctly differentiated and as readily apprehended on the flash cards as the smaller numbers. When the picture  is flashed before the pupil, he soon learns to respond instantly with 6. When asked how he knows it to be 6, the answer is, "Because I see five and one."

We have adopted this one-line arrangement of units, in spite of the fact that certain investigations (carried on mostly in Germany) have led some educators to believe that other figures, having the units arranged in two rows, or in the formation of squares, are to be preferred. This is not the place to enter upon a detailed discussion of the subject.<sup>1</sup> We find the arrangement here shown highly satisfactory, especially because it lends itself to further use in the work of the succeeding semesters, as will presently appear.

The chart is made by pasting squares of heavy paper (black, red, green, or blue) upon a sheet of gray cloth-board, which hangs on the front wall, and is always in sight. The units are about

<sup>1</sup> The subject is treated at great length, with a mass of statistical detail, in *A Foundation Study in the Pedagogy of Arithmetic*, by H. B. Howell, pp. 152-251.



Seven is apprehended as 2 more than 5; eight as 3 more than 5, and so on. Five-and-one, five-and-two, five-and-three, five-and-four, and five-and-five become thus, in a way, the pupil's *definitions* for 6, 7, 8, 9, and 10, respectively. During the concrete work with objects in the first half of the semester, care has been taken that the objects used were arranged whenever possible in the same way as the squares on the chart. It is upon this *definite visual image* of each number that we rely as a basis for fixing all combinations.

The following are some of the forms in which drill upon these fundamental combinations is given:

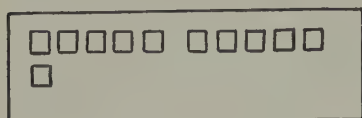
1. Looking at the picture of any one number, the pupil gives all the combinations which produce the number—that is, for the number six:  $1+5=6$ ;  $2+4=6$ ;  $3+3=6$ ;  $4+2=6$ ;  $5+1=6$ ;  $6+0=6$ ;  $7-1=6$ ;  $8-2=6$ ;  $9-3=6$ ;  $10-4=6$ .

2. Each number is compared with every other number on the chart: e. g. for 6; 6 is 5 more than 1; 6 is 4 more than 2; 6 is 3 more than 3; 6 is 2 more than 4; 6 is 1 more than 5; 6 is equal to 6; 6 is 1 less than 7; 6 is 2 less than 8; 6 is 3 less than 9; 6 is 4 less than 10.

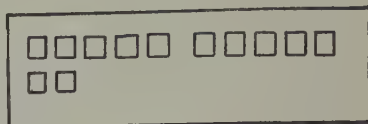
3. Special stress is laid on the combinations producing 10. Pointing to the successive number pictures on the chart, the pupil is required to state how many must be added to "fill the row": 1 and 9 are 10, 2 and 8 are 10, 3 and 7 are 10, etc., to 9 and 1 are 10.

The aim in all this work is of course to free the pupils gradually from dependence on the pictures and have all responses made without looking at the chart, but whenever a child hesitates, he turns to the chart and visualizes the required combination again and again. *Every effort is made to prevent as much as possible the making of incorrect responses.* Each pupil is provided with a card on which all the combinations shown above are printed and which he uses for individual practice to his heart's content. This business is by no means distasteful or irksome to children; indeed, many of them are delighted with it. The universal experience of pleasure in successful achievement, if we but give it a chance, can always be counted on as our effective ally. As soon as a pupil thinks that he can pass the test, he recites his card to the teacher, and if he gives all the responses correct with reasonable speed, he knows that his goal is won and is excused from further drill. Gradually the teacher has only a small number of children left to give special attention to. Experience shows that from 90 to 95 per cent of the children in Grade 2B can be the end of the semester be made as proficient in accuracy, if not in speed, with these combinations as they will ever need to be.

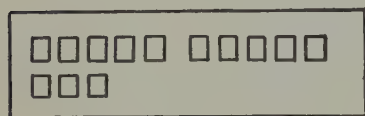
In Grade 2A the numbers from 11 to 20 are taken up. For each of these a chart is provided with a "picture," after the manner of those shown for the numbers dealt with in the preceding semester.



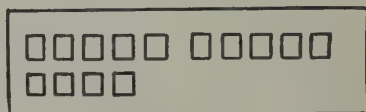
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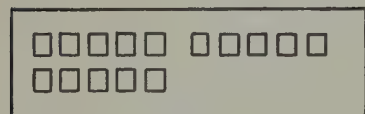
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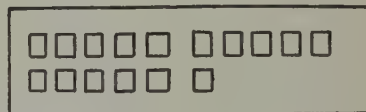
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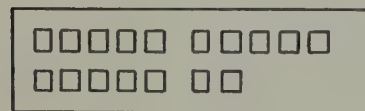
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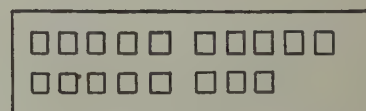
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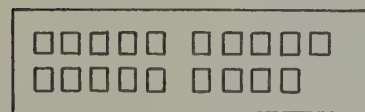
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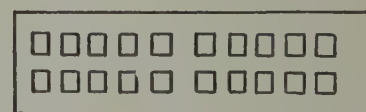
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18



19



20

The principle of decimal notation is here introduced, and the children are made aware of the fact that *the name of each number is obviously given by its picture*. Fourteen is identified and defined as ten and four, sixteen as ten and six, etc. It is essential that the pupils' attention be expressly directed to this basic fact again and again. The combinations  $10+1=11$ ,  $10+2=12$ ,  $10+3=13$ ,  $10+4=14$ , etc., thus come to be apprehended as axioms. The same consideration applies to the subtraction combinations  $11-1=10$ ,  $12-2=10$ ,  $13-3=10$ ,  $14-4=10$ , etc., to  $19-9=10$ . The value of a definite visual image for each number as an aid in grasping this principle is readily seen.

The main difficulty in this grade is the mastery of those combinations which involve the bridging of ten:

## 20 ADDITION COMBINATIONS

2	3	4	5	6	7	8	9	3	4
9	9	9	9	9	9	9	9	8	8
—	—	—	—	—	—	—	—	—	—
5	6	7	8	4	5	6	7	5	6
8	8	8	8	7	7	7	7	6	6
—	—	—	—	—	—	—	—	—	—

## 36 SUBTRACTION COMBINATIONS

11	11	11	11	11	11	11	11	12	12	12	12
2	3	4	5	6	7	8	9	3	4	5	6
—	—	—	—	—	—	—	—	—	—	—	—
12	12	13	12	13	13	13	13	13	14	14	14
7	8	9	4	5	6	7	8	9	5	6	7
—	—	—	—	—	—	—	—	—	—	—	—
14	14	15	15	15	15	16	16	16	17	17	18
8	9	6	7	8	9	7	8	9	8	9	9
—	—	—	—	—	—	—	—	—	—	—	—

In teaching these combinations our procedure is as follows: Let the combination be 9 and 2. We observe that 1 added to 9 fills the row and that the additional 1 to be added serves to start the second row, making  $10+1$  or 11. Taking the addends in reverse order (both ways of combining them must be given at the same time) we note that 8 added to 2 fills the row, and that the additional 1 to be added is placed at the beginning of the second row, making  $10+1$  or 11. Nine plus three is apprehended as  $9+1+2$ , or  $10+2$ , which *by definition* is 12. Nine plus four thus becomes  $9+1+3$ , or  $10+3$ , which *by definition* is 13. And so on, all through the list. Eight and six is visualized as  $8+2+4$ , or  $10+4$ , which is 14 *by definition*. Seven and eight is seen as  $7+3+5$ , or  $10+5$ , fifteen; six and seven becomes  $6+4+3$ , or  $10+3$ , thirteen, etc.

The objection may be raised that in this manner one process is unnecessarily broken up into two processes, and the matter made more complicated rather than simplified. The objection is purely theoretical. Experience has abundantly shown that second-grade children perform these operations without the least difficulty, *provided that* (1) the combinations below 10 have been thoroughly taught as described above, and (2) the numbers above 10 are clearly identified through their picture-definitions.

In the subtraction combinations the process is similar. To subtract 5 from 14 the pupil begins by taking up 4 from the second row, which leaves 10 (this is axiomatic), then takes 1 from the full row above:  $14-5$  thus becomes  $14-4-1$ , or  $10-1$ , nine. Fifteen minus eight is visualized as  $15-5-3$ , or  $10-3$ , seven. Twelve minus seven resolves itself into  $12-2-5$ , or  $10-5-5$ . Again the process depends upon clear visual images of the numbers above 10 and readiness to break up any number below 10 into its component parts.

In both addition and subtraction the original two responses, employed only temporarily as so-called propaedeutic bonds,<sup>1</sup> gradually merge into one. But when a pupil fails or hesitates in the drill period on any combination, he is told to recall (and, if that fails, to re-examine) the appropriate number picture and go through the two-step process again.

It is essential that the pupils' attention be expressly directed to the relationship between the addition and subtraction combinations. Thus  $9+6=15$ ,  $6+9=15$ ,  $15-6=9$ , and  $15-9=6$  must be presented as various aspects of one and the same arithmetical fact.

Besides the combinations involving the bridging of 10, it is necessary also to practice on those in which 10 is not bridged. It is not to be assumed that when a pupil knows  $5+4=9$  and  $7-4=3$ , he is also sure of  $15+4=19$  and  $17-4=13$ . Bright children perceive this readily, but for the average pupil it is necessary to see to it that the connections are definitely established. We need therefore drill upon the following:

## ADDITION

11 + 1	11 + 2	11 + 3	11 + 4	11 + 5
11 + 6	11 + 7	11 + 8	11 + 9	12 + 1
12 + 2	12 + 3	12 + 4	12 + 5	12 + 6
12 + 7	12 + 8	13 + 1	13 + 2	13 + 3
13 + 4	13 + 5	13 + 6	13 + 7	14 + 1
14 + 2	14 + 3	14 + 4	14 + 5	14 + 6
15 + 1	15 + 2	15 + 3	15 + 4	15 + 5
16 + 1	16 + 2	16 + 3	16 + 4	17 + 1
17 + 2	17 + 3	18 + 1	18 + 2	19 + 1

## SUBTRACTION

11 - 1	12 - 1	12 - 2	13 - 1	13 - 2
13 - 3	14 - 1	14 - 2	14 - 3	14 - 4
15 - 1	15 - 2	15 - 3	15 - 4	15 - 5
16 - 1	16 - 2	16 - 3	16 - 4	16 - 5
16 - 6	17 - 1	17 - 2	17 - 3	17 - 4
17 - 5	17 - 6	17 - 7	18 - 1	18 - 2
18 - 3	18 - 4	18 - 5	18 - 6	18 - 7
18 - 8	19 - 1	19 - 2	19 - 3	19 - 4
19 - 5	19 - 6	19 - 7	19 - 8	19 - 9

<sup>1</sup>Thorndike's Psychology of Arithmetic, pp. 117-121.



Here again each pupil is provided with a card on which the combinations are printed or mimeographed. These cards are used for individual practice and class drill as described above for the previous semester. The large charts, with the number pictures, are always in view and are resorted to whenever a pupil hesitates in response.

### THIRD GRADE

If the work described above for second grade has been systematically attended to, a secure foundation has been laid for all subsequent addition and subtraction, and the necessity for "remedial" work in the higher grades will be largely obviated. Of late years we have all come to look upon the teaching of arithmetic more and more as a process of habit formation. If we take the utmost care that good arithmetical habits are formed from the start, we shall not have to spend so many weary hours in trying to break up bad habits later on.

In the third grade we continue to make use of visual representation of numbers, by means of a wall chart on which the numbers from 1 to 100 are arranged in the manner shown here.

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

It will be seen that this chart is the logical extension of the scheme of number pictures employed in the grade below. Each number is clearly seen as consisting of so many tens and so many units; it is identified and defined by its position on the chart. Soon the pupils become able to point to any given number without hesitation or error. The teacher's task is now to make sure that the combinations previously learned are, by means of this chart, carried over into the higher decades. Some of the exercises in which the chart is used may be briefly described.

1. The pupils note that each number on the chart is 10 more than the number just above it, and 10 less than the number directly below it. Adding 10 to, and subtracting 10 from, any number, are seen to be very easy processes. It is apparent that the units' figure remains unchanged and the ten's figure is increased or decreased by one, or, as the children say, we get a number in the same column. Adding or subtracting 20, 30, etc., at sight follow naturally and easily.

2. In order to furnish systematic practice on all the addition combinations, an entire drill period is devoted to work with the numbers in one column. Let us take the seven-column. All the numbers in the column are named, up and down. We first note that all these numbers increased by 3 will give a multiple of 10, or a number at the end of the row. Let us first add 3 to each and every number in the column, beginning with the key-combination  $7+3=10$ . The pupils respond in turn rapidly:  $17+3=20$ ,  $27+3=30$ ,  $37+3=40$ , etc., to  $97+3=100$ . Next we add 4 to each number, recalling the fact that  $7+4$  was originally learned as  $7+3+1$ , or  $10+1=11$ . We observe that when 4 is added to any number in the 7-column, we reach the number in the one-column in the next row. Again responses are given in rapid succession:  $7+4=11$ ,  $17+4=21$ ,  $27+4=31$ , etc. Continuing in this way, 5, 6, 7, 8, and 9 each receive their turn in being added to each number in the 7-column. In each case we take the key-combination:  $7+5=12$ ,  $7+6=13$ , etc., and expressly note that the bridging of 10 learned in the second grade gives us our cue for bridging 20, 30, 40, etc. Finally we note what numbers can be added without completing the row—in this case 1 and 2. Drilling thus with each column in turn we make sure that every possible combination comes in for its due share of attention.

3. For practice in subtracting we again concentrate upon one column at a time. Take the numbers in the four-column. What digits are most easily subtracted from these? 1, 2, 3, and 4, because we do not need to bridge the ten. These require but little attention. For practice in subtracting 5, 6, 7, 8, and 9, we again take our cue from  $14-5$ ,  $14-6$ , etc., in the manner described above. While this form of subtraction does not need so much drill as the addition of the previous paragraph (since in written subtraction only the combinations learned in 2A are used), yet it should not be neglected.

The addition combinations practiced on with the chart as described above furnish the constituent bonds for the process of column addition, and it is essential that the children, as well as the teacher, be definitely aware of this fact. If children are to be effective and intelligent participators in this drill business, they must be made to see that the various skills they are acquiring

are not isolated elements, but are intended to function together so as to constitute an organized total ability in arithmetic. And teachers should take pains, in every form of drill work, all along the line, frequently to point out to their pupils just how this or that particular practice is intended to assist in the building up of their total arithmetical skill. As Thorndike says: "As each new ability is acquired, then, we seek to have it take its place as an improvement of a thinking being, as a coöperative member of a total organization. . . . Such an organization of bonds will not form itself any more than any one bond will create itself. If the elements of arithmetical ability are to act together as a total organized force, they must be made to act together in the course of learning."<sup>1</sup>

Practice in one-column addition begins early in grade 3B and is continued throughout the semester. The new element entering here is the adding of a digit seen to a number held in mind. A number of wall charts are provided with the columns of 8, 12, or 15 digits (printed with rubber stamps), so distributed that every digit occurs with proper frequency. Drill with these charts is oral and coöperative, each pupil in turn adding the next number to the number just announced by the pupil before him. Children are trained to utilize opportunities for combining digits whose sum is 10, to speed up and facilitate the process. The practice of checking the correctness of each answer by adding the digits in reverse direction is inculcated from the beginning.

Besides one-column addition the drill work in grade 3B includes the following:

1. Two-column addition of two and three numbers, the sum not to exceed 100, introducing the process of carrying. Checking of the answer as above.
2. Subtracting with 2-digit numbers, introducing the borrowing process. Check by adding the subtrahend to the remainder.
3. The tables of 2's, 3's, 4's, and 5's, presented as both multiplication and division.
4. Multiplying two-digit numbers by 2, 3, 4, and 5.
5. Dividing two-digit numbers by 2, 3, 4, and 5, the quotients being less than 10.

For some of these drills wall charts are furnished, while others are printed or mimeographed on cards, which are in the hands of the pupils individually. It is desirable to have an abundance of practice material in either or both of these two forms. The teachers are thus relieved of the necessity of much blackboard writing, and the danger that some types of drill may be neglected or forgotten is more adequately guarded against.

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<sup>1</sup> Thorndike's *Psychology of Arithmetic*, p. 139.

In order to insure systematic practice in all the fundamental operations and to furnish at the same time a means of measuring our progress, we have provided ourselves with standard practice tests, or drills, in addition, subtraction, multiplication, and division. These are printed in our own printshop, from plates, upon small sheets of ordinary arithmetic paper, the examples being so spaced out that the answers can be written on the papers. Our printshop furnishes us with such quantities of these drills that we always have a sufficient supply in stock. Some of the drills are printed upon cards, which are intended to be used over and over again, the answers being written on slips of paper laid underneath the printed examples. As many as 6 or 8 equivalent forms of each drill are furnished, so that the pupils do not use any one form often enough to be able to write the answers down from memory, as they sometimes do when only two forms of a drill are available.

JAMES SHIELDS SCHOOL			
STANDARD ARITHMETIC DRILLS			
Room.....		Grade.....	
Date .....		.....19..	
.....Min.....		Form.....	
	Tried	Right	
15	.....	.....	
14	.....	.....	
13	.....	.....	
12	.....	.....	
11	.....	.....	
10	.....	.....	
9	.....	.....	
8	.....	.....	
7	.....	.....	
6	.....	.....	
5	.....	.....	
4	.....	.....	
3	.....	.....	
2	.....	.....	
1	.....	.....	
0	.....	.....	
Median.....		.....	
Accuracy.....		%	

For each drill a definite time limit is set in each grade, so as to give a measurement for speed as well as for accuracy. Needless to say, the children are constantly admonished that, while speed is desirable, accuracy is always the first requirement. The class scores are tabulated on score sheets, which are sent at stated intervals to the principal's office. Each pupil keeps a record of his own scores, which shows him where he stands with reference to the class median, the meaning of which is explained to the children. Those who are above the class median are frequently excused from drill,

while those below have extra practice by themselves. This manner of using drill material has obviously these advantages:

1. Time is saved in that the children do not have to copy examples from the blackboard or from books.
2. Each pupil can measure his own progress and establish his record. He has a good incentive for putting forth his best efforts.



3. The frequently repeated experience of putting forth effort to reach one's maximal efficiency furnishes valuable training.

4. The teacher is enabled to set up a definite goal for her class to strive to attain.

5. The principal has a reliable instrument for measuring the progress of the work and for comparing the work done by different rooms of the same grade.

SHIELDS SCHOOL STANDARD ARITHMETIC DRILLS											
ONE-COLUMN ADDITION							FORM 1				
Pupil's Name.....							Tried.....	Right.....			
4	8	6	2	3	9	7	5	1	8	2	6
4	3	9	5	7	0	2	4	8	6	9	3
7	5	1	4	2	6	8	9	7	1	3	5
0	4	2	6	5	3	9	7	2	8	1	4
3	6	0	5	9	4	1	2	6	8	5	7
9	1	3	8	4	6	0	3	5	9	7	1
6	2	8	4	0	7	5	9	4	5	6	8
5	7	3	9	6	8	4	2	9	0	7	3

Sample of One-column Addition Drill reduced in size.

The one-column addition drill, the *first form of which is shown above*, is given daily during the second half of the 3B semester. On the first four days of the week the pupils work without time limit, which means that each pupil is allowed the time he needs to finish 6 additions, checking the sum of each before taking up the next one. The class score on these days is recorded for accuracy only. On the last day of the week the drill is given with a time limit of three minutes, everybody working as fast as he is able, without stopping to check the results.

In comparing the results, while we generally find a higher degree of accuracy in the drills with checking, this is by no means always true. Every once in a while we find that the timed exercise without checking results in a higher percentage of correct answers than the slow practice with checking. The technique of checking is apparently a rather difficult process for these young students. When, upon adding a column downwards, they obtain an answer different from the one obtained the first time, some of them are apt to substitute the second answer for the first without making any further effort to ascertain which is correct. The first answer may have been right and the second wrong. Also it happens that they reach the same incorrect result twice over. This observation does not, of course, constitute

an argument against checking; it simply means that young children have not enough perseverance, nor sufficiently exacting ideals of thoroughness to insure absolute accuracy.

At the close of the first semester of the present school year the best record we attained in grade 3B in one-column addition with checking was 96.3 per cent accuracy. The best score in the 3-minute exercise without checking was a median speed of 7.8 examples tried and 95.7 per cent of correct answers.

The same drill is given occasionally in grade 3A, with the time limit reduced to 2 minutes. A considerable increase in speed is now noted, but little or no gain in accuracy, a plateau apparently being reached. By the end of the 3B semester the number of examples done in two minutes is almost exactly the same as it was at the close of 3B in two minutes. The accuracy attained in the timed drill by three rooms of grade 3A in January, 1924, was 92.7 per cent, 92.2 per cent, and 94.2 per cent respectively. The best record made with checking and no time limit was 97.4 per cent accuracy.

The standard drill in two-column addition, of which the first form is here reproduced, is used during the second half of the 3A semester, on the same plan as described above for one-column addition in the preceding grade, distinguishing between the practice exercise in which the answers are checked, and the time-limit exercise, or test, without checking. We find that the children become a little more reliable in the matter of checking, although up to the present we have not yet succeeded in reaching 100 per cent accuracy. The average classroom of 45 unselected third graders always contains enough weak members to prevent us from reaching that much desired goal. In the timed drill the best class median we have obtained in 3A is 7.4 attempts in 4 minutes with an accuracy of 87.1 per cent.

SHIELDS SCHOOL STANDARD ARITHMETIC DRILLS									
TWO-COLUMN ADDITION						FORM 1			
Name.....						Tried.....			
41	68	65	26	24	84	63	44	30	48
60	49	62	52	66	22	27	91	37	71
73	46	92	83	70	94	72	20	82	43
79	59	45	67	61	53	25	51	96	81
69	40	42	23	57	86	33	32	80	28
31	64	39	85	78	36	75	54	74	95
76	47	29	50	17	87	38	34	88	90
56	89	19	97	58	21	93	35	55	98
—	—	—	—	—	—	—	—	—	—

Sample of Two-column Addition Drill reduced in size.

Besides two-column addition the drill work of grade 3A includes the following:

1. The multiplication and division tables of 6's, 7's, 8's, 9's, 10's, 11's, and 12's. Printed on charts for oral class drill. For example, for the 7's:

2x7=.....	7x2=.....	.....x7=21	14÷7=.....	1/7 of 14=....
6x7=.....	7x6=.....	.....x7=35	42÷7=.....	1/7 of 35=....
9x7=.....	7x9=.....	.....x7=63	56÷7=.....	1/7 of 70=....
5x7=.....	7x5=.....	.....x7=42	35÷7=.....	1/7 of 28=....
etc.	etc.	etc.	etc.	etc.

2. Dividing two-digit numbers by 7, 8, 9, etc., the quotients being less than 10. Mimeographed cards in the hands of the pupils for oral class drill as well as for individual practice. For example, for dividing by 7:

7)25	7)40	7)56	7)68	7)9	7)38	7)18
7)32	7)50	7)28	7)61	7)45	7)12	7)35

and so on, all the numbers from 7 to 69 appearing as dividends. Responses made by the pupils in turn: 7 in 25, 3 and 4 remainder; 7 in 40, 5 and 5 remainder; 7 in 56, 8 and no remainder, etc. The table of 7's, written out in full, also appears on the card to be consulted whenever any one fails to respond promptly.

3. Multiplying numbers of 3 or 4 digits by 2, 3, 4, etc., to 9. Coöperative written practice, part of the class at the blackboard, all working the same example and writing down the figures of the product as announced by successive pupils. For instance, to multiply 6085 by 7. First pupil says: "7x5 is 35; write 5 and carry 3"; 2d: "7x8 is 56, and 3 is 59; write 9 and carry 5"; 3d: "7x0 is 0, and 5 is 5; write 5, nothing to carry"; 4th: "7x6 is 42; write 42." This form of coöperative drill is very effective in the early stages of habit formation, and can be used with all the operations.

4. Dividing 4-digit numbers by any one-digit number. Coöperative blackboard practice, similar to that described under (3), followed by individual written practice.

5. Subtraction with 4-digit numbers, introducing the zero difficulties. Practice as above.

#### FOURTH GRADE

The fundamental constituent bonds for the four operations are now supposed to have been formed, and it is for the teacher in the fourth grade to aim to bring her class to a full mastery of the processes of addition, subtraction, multiplication, and division with integral numbers. While in the course of the year a

##### SHIELDS SCHOOL STANDARD ARITHMETIC DRILLS

###### SUBTRACTION

FORM 1

Name.....Tried.....Right.....

64038	86114	50092	93227	70000
26546	30567	46248	24809	66473

42265	92007	37752	58160	78005
36058	26208	36927	53859	50298

Subtraction

Time limit for 4th grade—2 minutes

certain amount of practice is given with larger numbers (such as adding columns of 4- and 5-place numbers, and multiplying and dividing with 3- and 4-place numbers), most of the practice is had with such numbers as appear in the standard drills here reproduced. The samples of the drills here shown are reduced in size; on the papers actually used the numbers are large and spaced out so that there is room enough to write not only the

SHIELDS SCHOOL STANDARD ARITHMETIC DRILLS			
MULTIPLICATION			FORM 1
Name.....	Tried.....	Right.....	
84392 27	71057 64	38165 39	90274 75
52438 91	76091 52	61853 86	40729 48

Multiplication  
Time limit for 4th grade—5 minutes

answers, but also the intermediary writing necessary in multiplication and long division. As I have said before, six forms of each drill are provided (8 for long division), and in devising these forms the aim has been to have all possible combinations represented in the total series and to make the various forms of

SHIELDS SCHOOL STANDARD ARITHMETIC DRILLS			
SHORT DIVISION			FORM 1
Name.....	Tried.....	Right.....	
5)28545	9)42390	3)87558	7)30016
6)51660	2)73014	8)39024	4)38096
5)47250	9)97524	3)19470	7)38528

Short Division  
Time limit for 4th grade—2 minutes

any given operation of equal difficulty. Thus, in subtraction, there is the same number of cases of borrowing and the same number of zero difficulties in each form. In the multiplication drills the digits have been distributed as evenly as possible in the multiplicands and multipliers, with a slight preponderance of 7, 8, and 9. Similarly in the divisions the numbers have been chosen with a view to equalize the difficulties with zeros, trial divisors, and trial quotients as nearly as seems practicable.



## SHIELDS SCHOOL STANDARD ARITHMETIC DRILLS

LONG DIVISION

FORM 1

Name.....Tried.....Right.....

$$27 \overline{)118584}$$

$$63 \overline{)316134}$$

$$41 \overline{)393805}$$

$$85 \overline{)324445}$$

$$96 \overline{)389280}$$

$$78 \overline{)358254}$$

Long Division

Time limit for 4th grade—5 minutes

These drills are distributed through the fourth year in such manner that each is given as a test with its assigned time limit on the average once in two weeks (except that multiplication is not thus given until the second half of 4B, nor long division until the second half of 4A), so that by the end of the semester there are from 8 to 10 tabulated reports for each drill on file in the principal's office. At other drill periods the same materials are used for practice without time limit, each pupil finishing 4 or 5 examples and checking the results. From these drills the pupils making high scores are frequently excused while extra periods for practice are provided for those below the class median. Gradually the children become more efficient in the technique of checking answers, and once in a while a fourth grade class reaches 99 or even 100 per cent accuracy. The best class scores that we have so far recorded for the timed drills at the close of the fourth grade are as follows:

	Tried	Right	Percentage of Accuracy
3-min. two-col. addition.....	8.4.....	7.7.....	90.7
2-min. subtraction.....	10.2.....	9.5.....	93.1
2-min. short division.....	10.4.....	9.6.....	92.3
5-min. multiplication.....	7.4.....	6.6.....	87.3
5-min. long division.....	6.0.....	5.7.....	94.6

## FIFTH GRADE

In the fifth grade, while standard drills with integers are given occasionally, with the intent of keeping the various skills alive and in working order, our chief concern is the teaching of common fractions.

For drill work in fractions a booklet containing a series of practice tests is used, in which the exercises are so arranged that the specific difficulties in adding, subtracting, multiplying, and dividing are dealt with one at a time. Thus, for addition, there are drills in (1) adding similar fractions, (2) adding unlike

fractions such that one of the given denominators is the common denominator, (3) adding unlike fractions such that the common denominator is larger than any of the given denominators, (4) adding mixed numbers.

In subtraction, the following types are drilled upon separately: (1) subtract with similar fractions, (2) subtract a fraction from an integer, (3) subtract with unlike fractions, (4) subtract with mixed numbers having similar fractions, borrowing, (5) subtract with mixed numbers having unlike fractions.

In multiplication the following types appear in separate practice tests: (1) fraction by integer and integer by fraction, without canceling; (2) fraction and integer, with canceling; (3) fraction by fraction, without canceling; (4) fraction by fraction, with canceling; (5) mixed number by integer and vice versa; (6) mixed number by mixed number.

In division: (1) divide fraction by integer; (2) divide mixed number by integer; (3) divide integer by fraction or mixed number; (4) divide fraction by similar fraction; (5) divide fraction or mixed number by unlike fraction; (6) divide fraction or mixed number by mixed number.

Of each of these types 3 or 4 equivalent forms are available, the equivalence consisting in that for each and every example in one form there is an example of equal difficulty and complexity (as nearly as practicable) in each of the other forms. Each form of exercise consists of 12 or 15 examples. Having the practice material arranged in this manner, we are again enabled to assign a time limit to each type of exercise and tabulate and compare class scores in the same way as for the drills with whole numbers.

ADDITION Form 5	SUBTRACTION Form 4	MULTIPLICATION Form 6	DIVISION Form 7
1 $\frac{1}{2} + \frac{5}{8} =$	1 $6\frac{3}{4} - 4\frac{1}{2} =$	1 $8\frac{1}{2} \times 2\frac{1}{2} =$	1 $\frac{1}{2} \div 2 =$
2 $\frac{1}{12} + \frac{1}{2} =$	2 $6\frac{1}{4} - 5\frac{3}{4} =$	2 $4\frac{2}{3} \times 3\frac{1}{2} =$	2 $29\frac{3}{4} \div 7\frac{1}{2} =$
3 $\frac{2}{3} + \frac{1}{4} =$	3 $9\frac{1}{2} - 6\frac{5}{18} =$	3 $5\frac{1}{5} \times 9\frac{3}{4} =$	3 $6 \div \frac{1}{4} =$
4 $\frac{3}{4} + \frac{1}{2} =$	4 $8\frac{3}{4} - 3\frac{3}{10} =$	4 $2\frac{4}{5} \times 11\frac{1}{4} =$	4 $9\frac{3}{4} \div 3\frac{3}{8} =$
5 $\frac{1}{4} + \frac{1}{6} =$	5 $7 - 2\frac{5}{6} =$	5 $\frac{1}{10} \times 35 =$	5 $16 \div 20 =$
6 $\frac{3}{4} + \frac{1}{6} =$	6 $6\frac{2}{3} - 3\frac{1}{12} =$		
7 $\frac{1}{8} + \frac{1}{4} =$	7 $5\frac{1}{2} - 2\frac{2}{3} =$		
8 $\frac{1}{12} + \frac{1}{6} =$	8 $4\frac{1}{2} - 1\frac{1}{2} =$	6 $9\frac{1}{2} \times 1\frac{1}{2} =$	6 $25\frac{1}{2} \div 1\frac{1}{2} =$
9 $\frac{5}{8} + \frac{1}{2} =$	9 $9\frac{1}{4} - 6\frac{9}{20} =$	7 $4\frac{1}{6} \times 9\frac{3}{4} =$	7 $24 \div \frac{9}{10} =$
10 $\frac{1}{16} + \frac{1}{2} =$	10 $5\frac{3}{8} - 2\frac{15}{16} =$	8 $9\frac{1}{12} \times 36 =$	8 $41\frac{2}{3} \div 3\frac{1}{4} =$
11 $\frac{2}{3} + \frac{1}{15} =$	11 $6\frac{1}{2} - 3\frac{1}{6} =$	9 $3\frac{1}{4} \times 28\frac{1}{2} =$	9 $49 \div 1\frac{1}{2} =$
12 $\frac{3}{4} + \frac{9}{10} =$	12 $8\frac{1}{6} - 7\frac{2}{3} =$		
13 $\frac{1}{2} + \frac{1}{18} =$	13 $3\frac{1}{15} - 1\frac{3}{4} =$	10 $1\frac{7}{8} \times 26\frac{3}{8} =$	10 $\frac{3}{4} \div \frac{3}{4} =$
14 $\frac{5}{24} + \frac{3}{8} =$	14 $4\frac{5}{8} - 1\frac{1}{2} =$	11 $4\frac{1}{9} \times 2\frac{1}{16} =$	11 $\frac{7}{8} \div \frac{1}{2} =$
15 $\frac{4}{6} + \frac{1}{10} =$	15 $7\frac{11}{14} - 4\frac{2}{7} =$	12 $9\frac{2}{3} \times 7\frac{5}{8} =$	12 $9\frac{1}{2} \div 4 =$

Toward the close of the year, after all the practice tests have been finished, a standard test is used for each of the four operations to wind up the campaign. Six or eight equivalent forms of each test have been provided, which enables us to use them for the double purpose of final practice and measurement. When a pupil fails in a certain type of example in the standard test, he goes back to the appropriate page in the book of practice tests for remedial exercise. One form of the standard test for each operation is shown here. In using these materials we again distinguish between the practice exercise in which each member of the class finishes 8 or 10 examples, checking the answers, and the time limit test, in which everybody tries to get as many examples correctly done as he is able, without checking. In the former it is quite possible for a class of fifth-grade pupils to show 100 per cent accuracy. In the timed test the best class medians we have thus far obtained are the following:

	Tried	Right	Percentage of Accuracy
Addition, 3 minutes.....	13	12	96
Subtraction, 4 minutes.....	12	11	93
Multiplication, 5 minutes.....	9	8	89
Division, 5 minutes.....	10	9	91

### DRILL ON FUNDAMENTALS IN THE UPPER GRADES

If the work described in the preceding pages is carried on systematically through the second, third, fourth, and fifth grades, it should not be necessary to spend much time drilling on the fundamentals of arithmetic in the grades above. The earlier grades constitute the proper period for the formation of good arithmetical habits. It is in these grades that the battle must be fought and won. It is here that the fundamental bonds must be made, and can be made, practically as secure as they will ever be. It is here that individual work must be done with those pupils who are backward in getting a firm grasp of the elementary combinations. I submit that so-called remedial work with pupils in the upper grades is inexcusably out of place. The need for remedial work in the upper grades simply means that children have been allowed to form slovenly arithmetical habits in the grades below. When a class of seventh or eighth grade pupils makes a poor showing in a test in the fundamental operations, this fact is no reflection upon their present teacher,

but constitutes an indictment of the methods used by her co-workers in the primary grades. A few children there are, to be sure, perhaps three or four per cent of the total, whom even the best of teachers can not make more than half proficient in computation. They are simply "born short" in arithmetic, and it is doubtful if we should continue trying to remedy the irremediable and to demand of them what they seem congenitally incapable of doing. We may as well frankly face the fact that here we have a case of "educational determinism." After all there are many occupations in life for which a high degree of arithmetical skill is not an essential prerequisite.

In the upper grades a relatively small amount of practice, judiciously distributed, should be sufficient to hold the acquired abilities at the level of efficiency they have attained. We therefore aim to distribute our standard drills, with both integers and fractions, in such a way that the actual classroom time allotted to them is gradually reduced, until in the eighth grade it averages no more than ten minutes per week. It ought not to be necessary to continue this tiresome business of daily drill over so many years. The time at our disposal is too greatly needed for things that are more worthwhile. Progress toward perfect accuracy in the upper grades is not a matter of knowing the fundamental combinations better than they were known before. What is needed is the assiduous cultivation of habits and ideals of carefulness, trustworthiness, and responsibility. When these habits and ideals are brought into play, it is not at all impossible for a class of seventh and eighth grade pupils to reach one hundred per cent accuracy combined with a reasonable degree of speed.

I do not wish to be understood that our pupils make such perfect scores regularly, or very frequently. There are lapses, of course, plenty of them. Our best pupils sometimes fail us. How could it be otherwise? The world is full of imperfect things—who are we that we should so sternly demand perfection in children? It is true also that if practice is discontinued for a long period, we find a decrease in both accuracy and speed when it is resumed. But this does not need to worry us overmuch, for both can be recovered in a short time. What has once been thoroughly learned can be relearned later at short notice. Experience has shown this again and again.

The business man demands of his clerks 100 per cent accuracy in computation, and frequently complains that our graduates fall short of his requirements. I am not sure that



the business man himself is always perfect in the service he gives his customers. However this be, we must admit that numerical work of less than 100 per cent accuracy has little or no value in the counting-house. But not all our graduates are destined for the counting-house. Many of them will be needed in lines of work in which expertness in adding columns of figures is not particularly important. Those of whom such expertness is required will rise to the occasion. In the demands of the job, the desire for advancement, the necessity for making good, young men and women find after all more potent incentives than any they have known in the classroom. And with growing experience and approaching maturity of mind they will acquire more exacting ideals of accuracy and perfection than they could appreciate while they were children in school.

## SUPERVISION OF DRILL WORK IN ARITHMETIC

WILLIAM S. MAXSON

*Elementary School Principal, White Plains, New York*

**A**RITHMETIC is the relation of quantity expressed by number. The relationships are addition, subtraction, multiplication, and division. Number drill is a repetition of these relationships for the purpose of co-ordinating their separate physical and mental efforts into a single automatic one.

Drill follows, never precedes; holds, but does not create number thoughts and acts. Combinations, tables, and processes must be taught in the proper way before drill can be of the slightest use. Continued drill perfects and combines the various fundamental acts so that less time and effort is consumed in their operation.

Accuracy, with rapidity, is the aim of all number drill and many devices are being tried for securing this, but all fall short that do not take into consideration the factors, time and practice. Practice, and then more practice, in each of the fundamental operations with every possible relation and combination of number to be found in them in a systematic, energetic, concentrated way and this kind of work continued daily until the operation becomes automatic is the only solution of this vital question.

The underlying principles for securing the most efficient number drill are alertness, independence, self-reliance, and interest. Alertness requires concentration and action; independence necessitates the doing of one's own work with no help from another; self-reliance comes from knowledge that one can do things for himself; interest always follows the above conditions and when that is secured the question of accuracy and rapidity is solved.

For drill purposes there must be provided material for working with every possible combination and relation of number, a sufficient number of examples in each operation for the continued daily drill necessary to secure desired results, relief for the teacher in looking over and correctly marking pupil's work, and the saving of time to both pupil and teacher.

Accuracy is strengthened by not allowing a second attempt nor the re-writing or correcting of a single figure. The aim is to secure correct results at a first trial rather than particular results after several trials. The obtaining of correct results with only one trial requires a concentration and confidence that can be obtained in no other way. Lack of confidence prevents many from becoming proficient. A pupil who feels he can have several chances will lessen his concentration and thereby lose the confidence in himself necessary for success. The best results are obtained under a direction and supervision which sees to it the pupil is forming correct habits and eliminating unnecessary steps.

Rapidity is hastened by eliminating all unnecessary and slowing steps or reactions. The eye and hand are the two physical factors that secure the final relationship of number drill. The eye should always control and precede. The closer we can train the hand action to approach the eye the greater will be the rapidity. This eye and hand training must be watched and controlled at the beginning as with a bad habit started, drill becomes a harmful act—weakening instead of strengthening.

*Supervision of drill work in arithmetic*—Clear desks of all material not used in drill. Place examples to be worked in such a position that the figures will fall directly before the eye and have practice paper in correct position for writing results with least effort and in quickest possible time.

Tell pupils to work, supervising closely their actions to see that nothing is being done to lose accuracy or hinder rapidity. See that pupils do not look away from the work, as some object is bound to attract the eye, divert the attention, and thereby cause inaccuracy. This looking away also causes loss to rapidity

as it takes an appreciable time for the eye to move away and return to the work in hand. The pencil or crayon should always be where the written result is to be recorded. There should be no hesitating or extra motions. The eye alone should image the various combinations without the aid of a pencil to keep the place; depending on the hand to move before the eye can take the next step slows up the work.

Addition drill becomes accurate and rapid if eye adding is followed, the pencil being used only for setting down the completed result. Supervise this by having hands at sides during the mental operation, writing the result of each column when obtained and returning hands to sides. This method controls each child in room as the position of hands is visible.

In subtraction and multiplication drill, the pencil should always remain below the line, writing with a continuous motion the combination relationships of remainders and products as they are secured. Never allow the pencil to go backward and forward, up or down, as this tends to produce slowness and inaccuracy.

Division combines three of the four fundamental operations—quotient finding, multiplication, and subtraction. The inaccuracy and slowness of division is due in large part to the triangular method of procedure from quotient to divisor to product. Before the round is completed the eye and hand become separated, so diverting the attention that there occur the simplest mistakes of multiplication and subtraction. This may be helped by training the eye to remain fixed on the divisor, the hand remaining below the partial dividends, and setting down the figures as they are obtained.

The following are suggested as some of the more important steps for control and supervision of number drill. Pass drill cards orderly and quickly, copy examples by periods, avoid any movement of drill card, have eye or sight reading only, keep pencil or crayon from card, work with a continuous action, do not urge or force rapidity, mark completed work of pupils and help those in need of it.

Give test drills with accuracy and time credit in all grades above the fourth. These drills carried on with proper control and supervision convey to pupils the result of their efforts, to teachers just what is lacking to each pupil, and to principals a ready and exact knowledge of the number efficiency of each grade or room in their school.

Five to eight minutes of drill work given daily to the sixth, seventh, and eighth grades will hold the number efficiency of lower grades, increase rapidity, and therefore decrease the present criticism that pupils leaving the public schools are unable to handle figures with accuracy and rapidity. The demand upon the attention and the concentration necessary to do this work has a stimulating effect on all other school work.

To get the best results from pupils and measure their skill in fundamental number there must be opportunity for each one to finish the work and get credit according to ability. Records show that in a class of pupils the difference in number ability will be approximately three to one. If the quickest pupils in class can perform the given work in two minutes the slowest will take six minutes. No amount of drill practice will materially change this ratio, as the quicker pupils will grow in skill in proportion to the slower. By practice the slow-motored pupil may become a four-and-one-half minute one and correspondingly the quicker pupil becomes a one-and-one-half-minute pupil. Drill tests should recognize the stronger as well as the weaker pupil and give proper credit to each as they grow more proficient.

The best test for efficiency is not to measure the work of the class by a stated flat time in which stronger and weaker pupils are rated alike, but by a system showing the steady improvement and growth of each pupil in the class. By this second method of testing, bright pupils may attain and get credit to the limit of their ability unhampered by the slower ones. The slow pupils work up to their capacity, not becoming discouraged in the vain attempt to go beyond their proficiency, a condition which never drags bright pupils down but brings slow pupils up.

*Efficiency test*—To measure rapidity give a trial test to determine the time the quickest pupil takes to work a stated number of examples, the number of examples given depending on type and length. Place on blackboard this shortest time lessened by a quarter minute and increase this time by quarter-minute intervals to one quarter minute less time than that taken by slowest pupil. This quarter-minute shorter time at the beginning gives opportunity for the stronger pupils to improve and get credit, while the quarter-minute shorter time at the end compels the slower pupils to observe all the time-saving acts that will allow them to complete the work within the given time. Illustration:—If by test a given number of examples are worked in one and one half minutes by the quickest pupil, and it takes the slowest pupil



four and one half minutes, the time on the blackboard will be  $1\frac{1}{4}$ ,  $1\frac{1}{2}$ ,  $1\frac{3}{4}$ , 2,  $2\frac{1}{4}$ ,  $2\frac{1}{2}$ ,  $2\frac{3}{4}$ , 3,  $3\frac{1}{4}$ ,  $3\frac{1}{2}$ ,  $3\frac{3}{4}$ , 4,  $4\frac{1}{4}$  minutes.  $1\frac{1}{4}$  is one fourth minute less than the one and one half minutes taken by the quickest pupil to do the work of the trial test and  $4\frac{1}{4}$  minutes is one fourth minute less than the four and one half minutes, the time required by the slowest pupil to do it.

*Working method for time and accuracy test*—Signal to copy and work, erase shortest time interval as it elapses. Have each pupil as they finish, write at the head of their paper the shortest time-interval remaining on board, put their pencils down, and sit quietly until test is finished. This test gives a true and exact record of each pupil's rapidity. The papers are now corrected for accuracy. The growth of individuals and classes is measured by accuracy with increased rapidity.

*Illustration record*:—Fifth grade, 37 pupils, individual examples—1-figure multiplier, 6-figure multiplicand. Each pupil copied and worked eight examples.

*Blackboard Rapidity Record*:—1 pupil, 50 seconds; 1 pupil, 55 seconds; 4 pupils, 1 minute; 4 pupils,  $1\frac{1}{4}$  minutes; 10 pupils,  $1\frac{1}{2}$  minutes; 7 pupils,  $1\frac{3}{4}$  minutes; 6 pupils, 2 minutes; 3 pupils,  $2\frac{1}{4}$  minutes; and 1 pupil,  $2\frac{1}{2}$  minutes.

*Accuracy Record*:—30 pupils, perfect; 2 pupils, missed 1 each; 3 pupils, missed 2 each; and 2 pupils, missed 3 each. Total examples worked, 296; total correct, 282; per cent correct, 95.2.

Drill should always be given under supervision as otherwise bad practices will grow into worse habits.

## CHAPTER VII

### A NECESSARY STEP IN THE DIAGNOSIS OF PUPIL DIFFICULTIES IN ARITHMETIC

L. J. BRUECKNER

*Director, Tests and Measurements, Minneapolis Public Schools*

IT IS COMMON knowledge in these days of the objective analysis of the classroom teaching of arithmetic that in almost all groups of pupils there can be found those who are inferior in ability and that the drill work given the class as a whole seems to bring about little improvement. Courtis, Monroe, and others have shown the importance of adjusting the class procedure in such a way that a child will be given work with the type of material that will best aid him in overcoming his weaknesses. The result has been the development of such standard practice materials as constructed by Courtis and Studebaker, which make this possible. Yet, even with this material, some pupils fail to make progress in their work. Diagnostic tests, by means of which the teacher can determine the precise problems and processes in which the child is weak, have also been developed by Monroe, Osburn, and others. There is still the problem of determining just what causes the child to fail in a certain type of work. What are the mental reactions of a child who is having difficulty? Are his methods of work correct? Does he use any faulty procedures? Does he use uneconomical methods of work? What is the best method of discovering these weaknesses? How can they be overcome and eliminated?

A careful study has been made in Minneapolis of pupils who are low in arithmetic ability as revealed by the results of standardised tests. In many cases the difficulty is due to peculiar methods of work and faulty habits of procedure in solving simple arithmetic problems. These processes are ordinarily not detected by the teacher when the entire class works as a unit and cannot be discovered from an examination of the test papers. Tests that are given will always reveal certain pupils who are below the standard of their grade in ability. The problem before the teacher is to make the best use of these findings.

By means of individual study of these pupils and an observation of how they work their problem, teachers can readily discover their difficulties. This can be accomplished by having the work done aloud by the pupil so that the teacher can determine

the procedure used by the child at each step of the problem. This requires tact and patience on the part of the examiner, since children do not readily disclose peculiarities of methods unless there is a feeling of freedom and interest and an evident desire on the part of the teacher to help. With a little practice teachers can readily diagnose individual difficulties. The Courtis Practice Test Series is well adapted to this purpose. The manual that comes with the tests contains descriptions of remedial work that can be done with pupils who fail on each of the tests. The series of carefully graded diagnostic tests by Monroe and Osburn are also helpful.

For the investigation reported in this chapter by Miss Probst, the summary sheet of difficulties in arithmetic described in the second yearbook was used. An improved method of discovering and recording these difficulties was also worked out. Instead of having the test exercises printed on separate cards, they were mimeographed in carefully graded groups on a single sheet of paper. The pupil began with one of the sets and proceeded until difficulties arose. This made it possible not only to preserve the complete record of a pupil's work, but the teacher could also see the precise place where the faulty habits became evident. Notes showing the methods of work were written either in the margin or on the back of the sheet. The difficulties that were detected were summarized on a summary sheet, and the remedial work needed to overcome them was prescribed.

A procedure to be followed in making a diagnosis is as follows:

1. Select for study the pupils who fall in groups IV or V on the Courtis Supervisory Test, or who in other ways have shown weaknesses in the fundamentals.

2. While the other members of the class are at work at their seats, have one of these deficient pupils come forward to the teacher's desk. Another plan that can be used is to do this work before or after school. Tell him that you wish to help him improve his work in arithmetic and that you want to observe how he works his problems so that you can help in overcoming the difficulties. Point out to him his relative position in the group. Try in every way to overcome any feelings of shyness or backwardness. Encourage him to be perfectly frank in his statements, and to give in full his procedure in working a problem with which he has difficulty. The teacher should be especially careful not to censure or criticise the pupil when peculiar methods of work become evident. It is important at this stage that

these be discovered and that the remedial work be then undertaken to remove specific difficulties.

3. When the purpose has been made clear to the pupil, ask him to work a few simple problems in each of the fundamentals and observe his general methods of work. It is a better plan to use some material organized for this work, similar to that described above. Look for counting, tapping, faulty methods of working problems, difficult places in problems, excessive motor activity, and the like. Pupils will quickly reveal their weaknesses. Many can point them out when asked to tell what their trouble is. Some have been found who are excellent in one process but poor in the others.

4. When difficulties are apparent ask the pupil to work one of the problems aloud. Encourage him to give in detail what his procedure is. Watch for faulty statements, roundabout methods, and other types of difficulties that are described later in this report. Teachers will quickly discover that there are many peculiar habits that are not apparent when the entire class works as a whole on a set of problems, and when it is not possible to study the work of individual pupils.

5. It is best to begin with the simplest processes and then to proceed to the more difficult ones in order to determine on just what level of work the pupil fails. It will be found, for many pupils, that the most elementary combinations are not well established as habits, and that for some pupils the lowest group on the Courtis Test Drill Work must begin here. Pupils of superior ability can be used to help in this work, as was done at the Calhoun School, provided, that the teacher checks beforehand the methods they use and makes certain that the pupils needing drill get the correct basic procedures.

6. Psychology has shown that arithmetic abilities are specific; that is, that each ability must be developed by drill directed to that end. Arithmetic is a complex of many specific bonds and processes, and training in one phase transfers to other phases only in so far as the same bonds are present. Superior ability in addition does not necessarily insure ability in division. There has been found to be a fairly high correlation between the different abilities, but specific training for each is needed. In order to overcome peculiar habits of work, the incorrect habits must be broken down and new habits established. Here the fundamental laws of drill are applicable. A good discussion of them can be found in Thorndike's *Psychology of Arithmetic*.



A number of typical errors in each of the fundamental processes has been collected by the Research Bureau. Selected ones are described briefly below and will assist the teacher to detect specific errors and faulty procedures. Special attention should be given to the problems of just what the best procedures are and how they can be taught. It can be safely assumed that, where pupils make a good record on a standard test, their habits of work are reasonably satisfactory. The best methods that can be determined should be taught to pupils who reveal weaknesses. Faulty methods of work, cumbersome statements of procedure, and so-called short cuts can be eliminated by careful teaching. A little time spent each day in working with backward pupils will be time well spent. This is shown by the results of the investigation carried on in the Calhoun School to determine the value of drill work organized to aid in the removal of specific difficulties.

### SELECTED TYPES OF PUPIL DIFFICULTIES

#### IN ADDITION

##### 1. Inspection to find starting point.

9	1	6	8
1	4	7	9
5	6	9	2
—	—	—	—

Most of the pupils examined had no regular starting point. They wasted time inspecting the problem to find out which combination they knew best. In the first problem the response would be 9-10-15; in the second, 6-10-11. Where there were no easy combinations as tens, they would begin at the end that had the hardest numbers in order to get these out of the way. In the third problem it is much easier for them to add 9 and 7, and to the sum the remaining 6, than to add the other way around, and that is the reason why in problem four 8 and 9 are added first and finally 2.

##### 2. Starts backwards.

6	4	1	4
5	6	3	2
3	2	8	6
—	—	—	—
			12

This is probably not a serious difficulty, but it seems strange that boys and girls who have been in school five or six years begin adding and subtracting at the right end of a series of problems instead of at the left. In every case the examiner pointed to the left when she told them where they were to begin; but when the word "Go" was given, several began at the right.

## 3. Skips around.

4 Skipping around in the columns was quite a common fail-  
 3 ing. One wonders how pupils who do this are able to get  
 8 any problem correct at all, but some are quite proficient at  
 4 this and rarely make a mistake. One pupil proceeded as  
 1 follows:

8  $8+8=16$  and  $4=20$  and  $5=25$  and  $3=32$ .  
 4

— By using this method they try to get as many large numbers as possible out of the way at the beginning.

## 4. Breaks up combinations.

4 The breaking up of combinations was a common failing.  
 8 Most pupils were able to give the sum of the first two numbers even if they were large as in the illustration, but some  
 3 would either divide the 9 into a 7 and a 2, or into a 6 and  
 7 a 3. If the former division was used, the response would  
 9 be  $7+7=14$  and  $2=16$ ; if the latter response was given,  
 7 it was usually found to be a case of a pupil who thought  
 — and added in tens. This pupil would say  $7+3=10$  and  
 $6=16$ . The 7 was then divided into a 4 and a 3. The pupil who adds by  
 tens would say  $16+4=20$  and  $3=23$  and  $3=26$  and  $4=30$  and  $8=38$ .  
 The other type of pupil who adds straight along but breaks up his combinations would divide his 8 and then finish his problem.

This type of difficulty is very common. The pupils have not mastered the upper combinations. A 9 is usually broken up into a 6 and a 3; an 8 into a 5 and a 3, and so on.

## 5. Adds by tens.

3 Many pupils look for possible combinations of tens. Some  
 0 skip around as a result and others do not. It is prob-  
 (4) ably that the pupil whose work is given in the illustration  
 (5) knows the  $5+5$  combination better than the  $3+7$   
 (1) combination. This pupil picked out  $4+5+1$  as a ten  
 7 combination.  
 2

—

## 6. Carrying.

It is hard for some pupils to remember what they have to carry even in quite simple problems. Their attention is apt to wander. One little girl expressed herself, "First I think and get the answer, then I don't, and then I have to do it all over again." Usually, such pupils are able to succeed when they write down their answers as they work. Others are so intent on keeping in mind what they have to carry that they are apt to give the incorrect results. In the problem in the margin one child obtained 153, but was so intent on remembering the 1 she had to carry that they gave the result as 151.

45  
 36  
 72  
 —  
 15(1)  
 3

7. Trouble with the second addition in a column of figures.

6	Some children know their combination very well, but they
4	have trouble with the second addition. They know 8 and 4
8	are twelve, and then they count out the 6: Mr. Courtis
—	suggests that the child be told to picture the 12 written on
	the paper directly under the 6 in position for adding.

8. Bridging tens.

34	44	54
8	8	8
—	—	—

Many children had difficulty in bridging the tens. They knew their combinations but were unable to succeed in column addition because they had to count out all sums above 18. Pupils should be taught to see the numbers and to think the results 42, 52, 62 only.

### IN SUBTRACTION

1. Subtracts a number in the minuend from the subtrahend.

44	Some children take the minuend from the subtrahend if
—18	the former is smaller than the latter.
—	
34	

2. Faulty statements.

161
— 68
—
103

One boy in explaining the problem stated it as follows: 8 goes into 11 3 times;  $2 \times 6 = 12$ ;  $12 + 4 = 16$ ; 16 goes into 16, 10 times.

3. Zero difficulties.

403	This type of problem causes much trouble for some chil-
—36	dren. In a problem of this type one pupil thought of
—	zero as nothing and borrowed from the four twice, once
279	to make 13 and the second time to make 10.

4. Borrowing and adding ten to results.

22	18	Many children seem to have difficulty when it comes
— 8	— 9	to borrowing problems. They forget that they have
—	—	borrowed and so their answers are ten too large.
24	19	

5. Roundabout methods of work.

- (a) Addition method.

7	$3 + 3 = 16$
—3	$+ 1 = 7$
—	
4	3 from 7 = 4

- (b) Counting and adding.

16 counts	5 dots	$(10-11-12-13-14) + 2 = 7$
— 9	+2	
—	—	
7	7	

- (c) Evident lack of comprehension of procedure.

$$\begin{array}{r} 37 \\ -15 \\ \hline \end{array}$$

22      Add the other 2 (obtained by taking 5 from 7)  
2 goes into 4 (3 and) — twice

- (d) Combining addition and subtraction.

$$\begin{array}{r} 12 \\ - 8 \\ \hline 4 \end{array}$$

- (e) One unnecessary step

$$\begin{array}{r} 57 \\ -29 \\ \hline 28 \end{array}$$

9 from 17=8  
2 from 5=3  
1 from 3=2

- (f) Subtracting one at a time

$$\begin{array}{r} 21 \\ - 4 \\ \hline \end{array}$$

20 is 1  
19 is 2  
18 is 3  
17 is 4

- (g) Subtracting 2 at a time

$$\begin{array}{r} 22 \\ - 8 \\ \hline \end{array}$$

20 is 1  
18 is 2  
16 is 3  
14 is 4

Here some pupil knew four 2's were needed.

Subtraction seemed to be the hardest of all the fundamental processes. Pupils are not able to give the results promptly from inspection and so they resort to all kinds of roundabout methods.

6. Some pupils have difficulty with particular combinations, which they can readily point out. One child always failed wherever she came across the 8 plus 5=13 combination. When she came to subtract she never gave the correct result if the problem involved any of those particular figures.

## IN MULTIPLICATION

1. Multiplier not always used as the multiplier.

$\begin{array}{r} 43 \\ \times 2 \\ \hline \end{array}$	$\begin{array}{r} 3 \times 2 = 6 \\ 4 \times 2 = 8 \end{array}$	$\begin{array}{r} 52 \\ \times 3 \\ \hline \end{array}$	$\begin{array}{r} 3 \times 2 = 6 \\ 5 \times 3 = 15 \end{array}$
---	---	---	--

Some children do not always multiply with the multiplier. They obtain the correct results but they seem to know certain combinations better than others. Almost invariably, the larger number is used as the multiplier. Notice that the above pupil always said  $3 \times 2 = 6$ .

2. Zero difficulties.

$$\begin{array}{r} 103 \\ \times 3 \\ \hline 339 \end{array}$$

$$\begin{array}{r} 511 \\ 30 \\ \hline 000 \\ 1533 \\ \hline 15330 \end{array}$$

The first type of problem caused the most difficulty. Occasionally, a pupil places the zeros down as in the second problem.



## 3. Carrying difficulties.

$$\begin{array}{r} 84 \\ \times 7 \\ \hline \end{array}$$

534

$$7 \times 4 = 28$$

$$7 \times 8 = 56$$

Here the pupil added the 6 from the 56 to 28 and obtained 34.

$$\begin{array}{r} 63 \\ \times 6 \\ \hline \end{array}$$

$$6 \times 6 = 36$$

$$6 \times 3 = 18$$

Here again he added his 6 to the 18 besides starting his multiplication at the left instead of at the right.

$$\begin{array}{r} 29 \\ \times 9 \\ \hline \end{array}$$

$$9 \times 9 = 81$$

$$18 + 8 = 26$$

268

The pupil was so intent on keeping in mind what she had to carry that she substituted the 8 for the 1 in writing the product.

32

$$\times 7$$

Some pupils are apt to turn their numbers around.

124

## 4. Placing of product.

354

63

Some pupils have difficulty in placing their products in the proper place.

1062

2124

3186

## IN DIVISION

## 1. Roundabout methods.

One child said: 4 goes in 34, 8 times

$$2 \ ) \ 34$$

$$8 \times 2 = 16$$

16

$$3 \ ) \ 29$$

This is the way one child explained this problem: "They're

getting harder all the time. 3 into 2, 0 times; 3 into 9, 3 times. No, that is not right, but 11 is too high, 10 is too high, 8 is too low, 9 is too low and 10 is too high. I don't know what to do."

$$3 \ ) \ 29$$

9

$$7 \ ) \ 357$$

5

$$5 \ ) \ 545$$

9

In the first problem no attention is paid to the remainder. In the second the division is not completed. The pupil's mind was set on seeing how many times a number was contained in a two place number and so he failed to work even the first step in the third problem correctly.

## 2. Zero difficulties.

$$3 \ ) \ 603$$

Pupils overlook the zero in working problems of this type.

21

## 3. Inability to subtract.

Naturally the pupil who is unable to subtract readily or who uses roundabout or confusing methods of subtraction is bound to have trouble with his long division.

$$\begin{array}{r}
 5 \\
 \hline
 61 \overline{)3477} \\
 \hline
 305 \\
 \hline
 27
 \end{array}$$

## 4. Forgets what to carry.

49 - 1/3      Some pupils have difficulty in remembering what they have to carry. They are able to work the problem, but when asked to do it orally, fail. This boy forgot that he had 1 to carry. He thought it was 2 and worked the problem on that basis.

$$\begin{array}{r}
 3 \overline{)138} \\
 \hline
 \end{array}$$

## 5. Repeats tables for results.

3 ) 27      Some pupils seem to find it necessary to repeat their tables in order to obtain their results. They think 9, 18, 27 in some case.

12 ) 84      This same pupil stated that he was trying to think what table ended in 84. He said he thought  $77 + 7 = 84$ . On being questioned if he thought of any other tables he said he had thought of 99, but that was too large.

## 6. Difficulty with trial divisors.

3 ) 363      Several pupils failed in problems of this type because they had trouble in seeing the trial dividend. They failed on the problem because they tried to tell the number of 3's in 36.

$$\begin{array}{r}
 91 \\
 \hline
 53 \overline{)639} \\
 477 \\
 \hline
 159
 \end{array}$$

Teachers will note many other difficulties when working with pupils. The prevalence of the types described has not been determined. It is not known which one of them occurs most frequently in any one grade. Teachers who discover other types are asked to describe them briefly and send them to the Research Bureau.

The above list is not exhaustive. Teachers will soon find many other peculiarities in the arithmetic work of the pupils. If a principal finds peculiar types of responses it is possible for him to check carefully the methods used by the teachers in order that the place may be located where faulty habits begin. It has been found that, when teachers become conscious of the strange methods of behavior of some of their pupils, they are more sympathetic and patient and make every effort to improve the conditions.

In one of the Minneapolis schools, the Monroe, the principal took out of their classrooms all pupils from grades 4B through 6B who were found to be deficient in their work. They were carefully studied by the principal who took charge of teaching them individually during a short period of time. Great progress was made and soon numbers of them were able to re-enter the regular class work. In the meantime the teacher was thus relieved of the responsibility of teaching the backward pupils.

When one thinks of the peculiar difficulties that children have in spelling, reading, and other subjects, the need of a hospital room for these handicapped ones, similar to that of Miss Leland at the Marr School in Detroit, is apparent.

#### DIFFICULTIES OF CLARENCE G——

Clarence stated that he did not like arithmetic very well and that addition and multiplication were especially difficult for him.

He finished the addition problems on the Courtis Supervisory Test A in one minute, eight of the subtraction problems in another minute. During his allotted time of four and one-half minutes he finished the multiplication problems, working in all twenty-four problems and having two errors in addition and one in multiplication. He was allowed to work until he had completed the division problems in the test. This took an additional three minutes and ten seconds. Only two of these were correct. One would be tempted to say off hand that most of his difficulty lay in division.

An examination of these problems revealed several difficulties. In the first there were difficulties with subtraction. This was a great stumbling block with him, although it was almost not discovered because he had a perfect score in his subtraction problems. In the second problem he underlined his first dividend and then proceeded to neglect it entirely. The fact that his remainder was larger than his divisor did not seem to trouble him at all. The fourth problem had the correct answer, but the last step was not written down.

Lip movement and vocalization were evident throughout the process. The examiner thought that he also used his fingers in some way, but he denied this. Later, though, when asked how he obtained an answer for a test exercise, he said that he counted by digging his finger-nail into the edge of the card. He was a very nice child to work with. He was perfectly willing to tell how he obtained all his results, and his willing coöperation aided greatly in discovering the many strange and faulty methods he had of arriving at his results.

In addition he used roundabout methods. He did not add the items in order but in a problem like the following, he said:  $9+9=18+5=23$ .

He needed drill especially on his upper 5  
combinations. 9

Upon closer examination in his work in subtraction, although he had a perfect score in those on the test, it was soon found that he seemed to have difficulty with even the simplest problems. At first it appeared to be a matter of not knowing certain combinations, and after he had worked sev-

eral he was asked to tell me how he obtained the following result: 37 He had given the correct answer, but there was something strange —15 in

22

his method of procedure. He stated his method as follows: 15 goes into 30 twice. Add the other 2 (he obtained this 2 by taking 5 from 7). Two goes into 4 (3 and 1) twice and one over. He was asked to work other problems and he proceeded in the same fashion. He worked the problem 12 as follows: 8 from 10=2. Two plus 2 equals 4. He worked other — 8 problems in the same way.

He worked the problem 43 as follows: He said 8 goes into 3, 5 times—1 goes into 3, 3 times. —18 It was rather difficult to write down all he

said in explaining his work as the examiner did not wish to interrupt to ask him to repeat too often.

He was asked to work a few additional problems in division. All went well as long as the problems were the reverse process of the multiplication tables; but when he came to a problem like: 34 divided by 2=16 there was trouble immediately. He remembered his tables evidently, for he said 4 goes into 34, 8 times.  $8 \times 2 = 16$ .

In working 138 divided by 3=49  $\frac{1}{3}$ , he had trouble in remembering what he had to carry. He did not seem to be able to retain the 1 in mind, but he worked problems of this type quite readily with his pencil.

In working multiplication problems of this type, he said  $5 \times 3 = 15$  in working the following problem: 32  $2 \times 5 = 10$

$\times 6$

115

In working: 63

He said  $6 \times 6 = 36$

$\times 6$

$6 \times 3 = 18$

324

He said he always worked them this way, but when he was given his test paper he saw at once that he did not and proceeded to work the next problem.

$84 \times 7 = 534$

$7 \times 4 = 28$

$7 \times 8 = 56$

He immediately stated that he had made a mistake in the last problem, that he had added the 6 to the 28, and so had obtained the answer 534.

## FOLLOWING UP A SURVEY OF INSTRUCTION

ELLA M. PROBST

*Principal, Calhoun School, Minneapolis, Minnesota*

A SURVEY of the subject ratings given to pupils in the elementary and grammar grades reveals the fact that the number of failures in arithmetic far exceeds those in any other school subject. When teachers are questioned as to the causes of these failures, we frequently get an answer something like this: "It isn't because the process has not been taught. The pupil *knows* the process. The causes of his failure are: first,



inability to comprehend the conditions of problems; and second, carelessness in performing the fundamental operations."

The first cause of failure mentioned, inability to grasp the conditions of the problem, belongs largely to the field of silent reading, and will not be discussed here. The second cause, inaccuracy in the handling of figures, was made the subject of an intensive study by the teachers of the fourth, fifth, and sixth grades of Calhoun School during the months of February and March, 1924.

We were not satisfied that carelessness, alone, accounted for the extremely inaccurate work of many of the pupils, so we decided to single out those who showed special weaknesses, study their difficulties, and, if possible, provide remedial training.

The Courtis Standard Supervisory Tests A and B were used for the preliminary survey. Test A, Form 3, was given to grades 4A and 5B; Test B, Form 1, was given to grades 5A, 6B, and 6A. A tabulation of results, according to the test tabulation sheet, divided the pupils into five groups as follows:

	Number	Per Cent
Group I. Pupils of standard ability.....	15	5
Group II. Pupils for whom the regular work will furnish sufficient drill.....	71	21
Group III. Pupils in need of thorough drill.....	129	39
Group IV. Pupils who need special attention and extra drill .....	70	21
Group V. Pupils so far below standard that special adjustment is necessary.....	45	14
Total number of pupils tested.....	330	100

Following this survey, the teachers of these grades held a conference to devise ways and means of improving the situation. To this conference we invited Dr. L. J. Brueckner, director of tests and measurements, and several of his students in the College of Education, University of Minnesota, who were interested in the problem. It was decided to make an intensive investigation of the causes of failure of the forty-five pupils who were classified in Group V.

We brought in several children who were in this group, and Dr. Brueckner demonstrated a case diagnosis for the teachers and students. He used the diagnostic material described in his article, "A Diagnosis Sheet in Arithmetic," which was published in the Second Yearbook of the Department of Elementary School Principals.

Space does not permit a detailed discussion of the material used, or of the types of difficulty revealed. A fuller discussion of

this phase of the diagnosis is given in Dr. Brueckner's article, "Diagnosis of Pupil Difficulties in Arithmetic," on page 290.

The revelations made by the diagnosis convinced us that the causes of difficulty lay deeper than superficial carelessness, or the missing of a certain combination. We could scarcely credit some of the queer, twisted, roundabout methods exhibited by the children when they did their thinking aloud. It amazed us to think that this had gone on, undetected, for years.

During the week following, four members of a class in practice supervision made an intensive diagnosis of the forty-five problem cases. Each child's special disabilities were ascertained, described in some detail for his teacher, charted on a diagnosis sheet (see page 424, Second Yearbook), and remedial work was prescribed.

The types of difficulty disclosed were most interesting. The most common fault proved to be the habit of counting. The teachers had worked faithfully to secure automatization of all combinations, but in spite of their efforts, twenty-three counters slipped through. They counted in the most amazing ways—with lips, tongue, toes, and fingers! Sometimes the counting was scarcely perceptible. Fourteen had a short attention span. They could readily add a column of four or five figures, but beyond that they were lost. Fourteen moved lips constantly, vocalizing every step, ten had a bad habit of guessing, eight failed because of faulty procedure, and six failed because of slowness.

*Addition difficulties*—Twenty-two skipped around, selecting combinations that seemed easy to them, eighteen hunted about for addends of 10, eighteen inspected the example to find a starting point, eleven had trouble with carrying, five added all the large numbers first to get them out of the way, and nine used curious roundabout methods.

*Subtraction difficulties*—Fifteen showed weakness in the fundamentals, fourteen had trouble with borrowing, twelve used roundabout methods, three always subtracted the smaller number from the larger whether it was in the minuend or subtrahend, four added to obtain results, and three counted backwards, using the fingers to keep track of the count.

*Multiplication difficulties*—Ten showed weakness in fundamentals, seven had carrying difficulties, nine used the multiplicand as the multiplier, and two had zero difficulties.

*Division difficulties*—Nineteen had trouble with uneven division, twelve had zero difficulties, eleven repeated the tables to

secure results, eight used roundabout methods, twelve had difficulty with trial division, and six couldn't remember what to carry in the multiplication involved.

It took from forty-five to ninety minutes to complete an individual diagnosis, the time depending upon the number and kind of difficulties encountered. We were fortunate in having the assistance of student examiners, but if we had not had their help, we could readily have made our own diagnoses. Any one who is supplied with the necessary diagnostic material can do the work. As a matter of fact, it is a distinct advantage for a teacher to make her own diagnosis, and some of our teachers preferred to do so.

The children, themselves, were keenly interested in the analysis, and coöperated willingly with the teachers in their effort to improve the situation. It sometimes happened that a child had only one or two special difficulties. When these were known it was a comparatively easy matter to clear up the trouble. On the other hand, one boy in the 5A grade had a total of twenty-three separate kinds of trouble. No wonder his teachers considered him extremely "careless" in the handling of figures!

It was planned to re-test at the end of about two months, and to measure the improvement made by the school in the interim. To stimulate interest in improvement, a "group-individual" graph was made for each room. This proved a powerful aid in motivation, as it showed each pupil exactly where he stood and definitely charted his progress. This graph, showing individual improvement, is shown in Figures 4 and 5.

Each class was supplied with a full cabinet of Courtis Standard Practice material, and the prescriptions were filled from these. Everyone in Group V received from his teacher a selected list of cards, designed to remedy his special weaknesses. He was then assigned to a pupil teacher chosen from Group I or from among the stronger children in Group II. Before the pupil-teacher was allowed to coach his classmate, he was carefully tested by his teacher who required him to perform the various operations aloud so that she might check his methods. It was discovered that some of the pupil teachers who were generally speedy and accurate had some faulty habits of work that had to be corrected before they could be trusted to guide their classmates.

The pupil teachers took their charges for regular practice each day. At first the weak pupil was required to do all his thinking aloud, so that the pupil-teacher could check his habits. At this

stage of the practice the "pairs" usually worked in a vacant room, so that the oral work would not disturb the rest of the class. As the practice progressed, however, the oral work was discontinued and the pupil was allowed to practice silently.

The pupils in Groups II, III, and IV were given daily practice by the teacher on the Courtis Practice material, but for these pupils, no particular work was selected. Each child worked independently on the practice cards, taking them in their regular order.

No class took extra school time from the regular program for drill work. The daily period for arithmetic drill ranged from  $6\frac{1}{4}$  minutes in the fourth grade to 4 minutes in the sixth grade. The pupils in Group V had special daily assignments with their pupil teachers, but much of this work was done out of school hours. The extra school time given to drill by pupil teachers averaged ten minutes daily. Some of the pupil teachers submitted weekly reports on their pupils' progress. This pride in their accomplishment stimulated the children to greater interest and exertion.

The re-test was given April 7, 1924. For this test we used Test A, Form 2, for the 4A and 5B grades, and Test B, Form 2, for the 5A, 6B, and 6A grades. In order to have the conditions of all the tests alike, all of the tests, both in the preliminary and the re-test, were given by the writer, the teachers checking on the time.

A tabulation of the results showed a marked improvement. The children were again divided into five ability groups, but a general shifting into the higher groups was apparent. The redistribution was as follows:

	Number	Per Cent
Group I. Standard ability .....	69	20
Group II. Pupils for whom the regular work will suffice .....	116	34
Group III. Pupils who need thorough drill.....	114	33
Group IV. Pupils in need of special attention and extra drill .....	30	9
Group V. Pupils in need of special adjustment....	14	4
Total number of pupils tested.....	343	100

Figure 1 shows the distribution of the pupils into five groups by the February test; also the redistribution by the April test. The February grouping is shown in outline, and the April grouping is shown in solid black. Note the large increase in Groups I and II in the April Test.



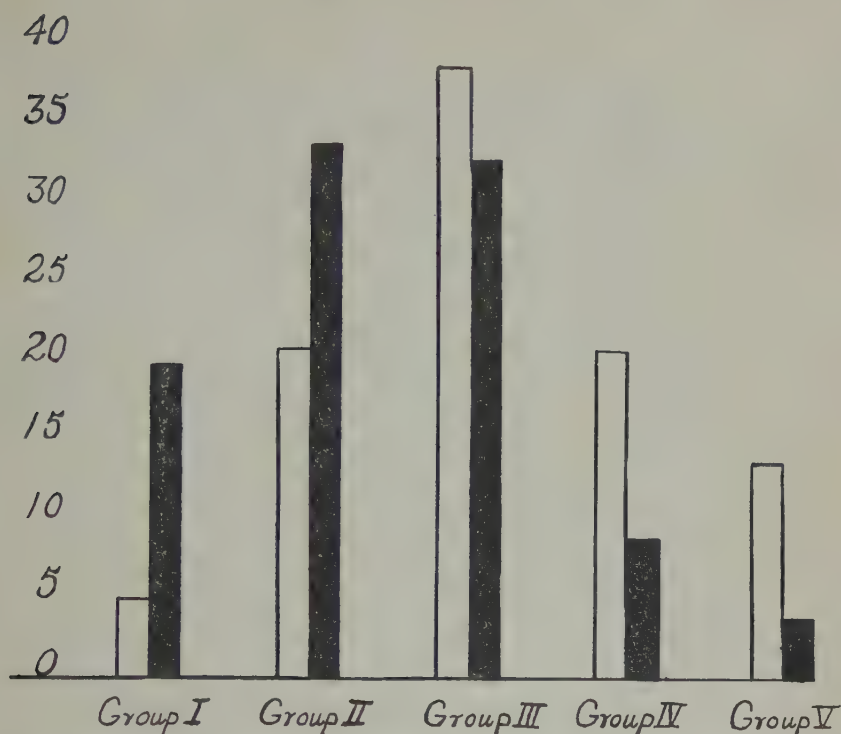


FIGURE 1.—Distribution of ability groups in the February and April Tests. The February distribution is shown in outline; the April distribution is shown in solid black.

We were all especially interested in the fate of the forty-five. Only forty-two of the original forty-five were in school at the time of the re-test and these were distributed as follows: One was advanced to Group I, ten to Group II, sixteen to Group III, ten to Group IV, only five remained in Group V.

Not only was there pronounced improvement on the part of this special group, but a general advancement was made by the classes as a whole. This advancement is shown in Figures 2 and 3. Figure 2 shows the improvement in Test A, and Figure 3 shows the improvement in Test B. Both tests cover all the fundamental operations in arithmetic, but Test A is considerably simpler, the standards are correspondingly higher, and therefore, two graphs are necessary for the purposes of comparison.

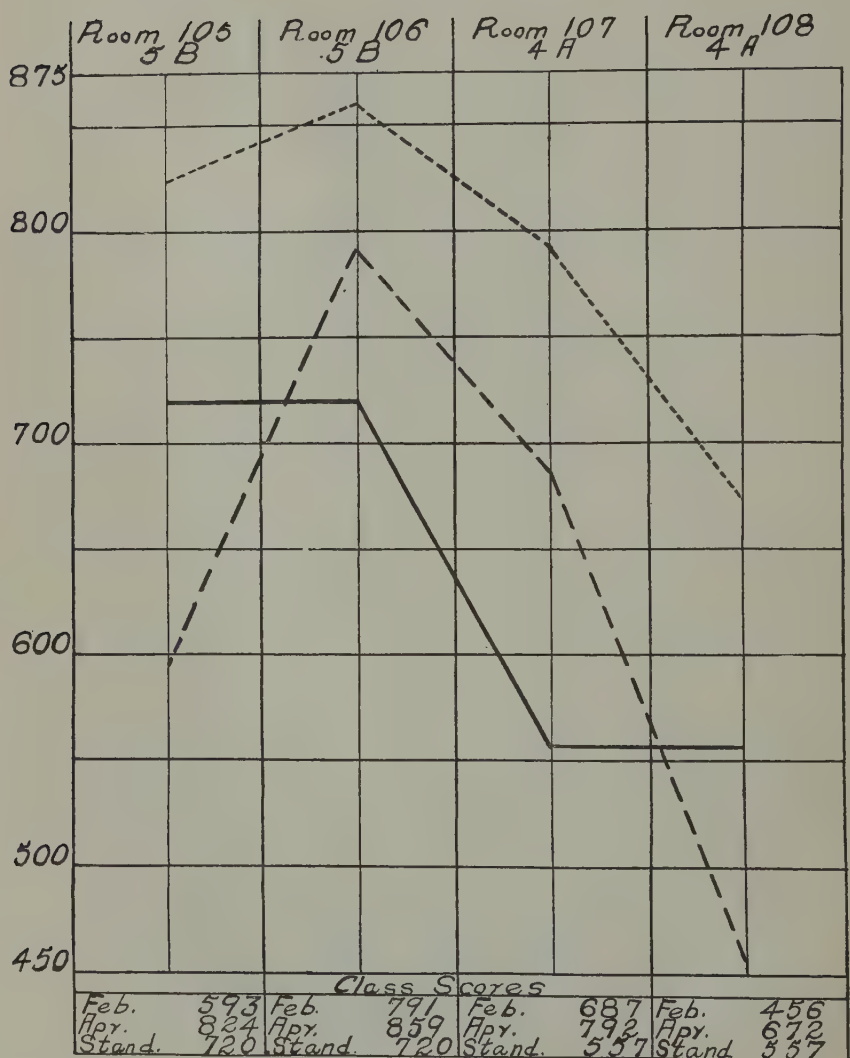


FIGURE 2.—TEST A—Gain made in eight weeks in grades 4A and 5B.

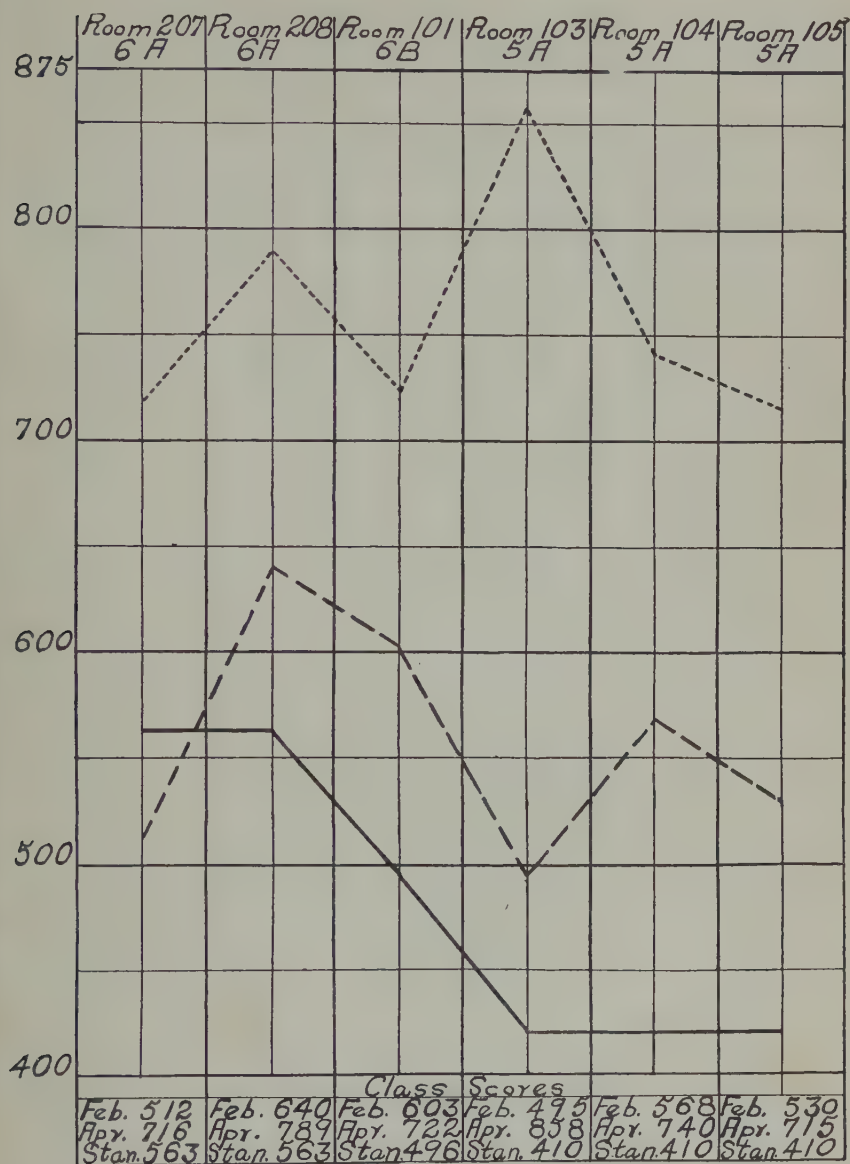


FIGURE 3.—TEST B—Gain made in eight weeks in grades 5A, 6B, and 6A.

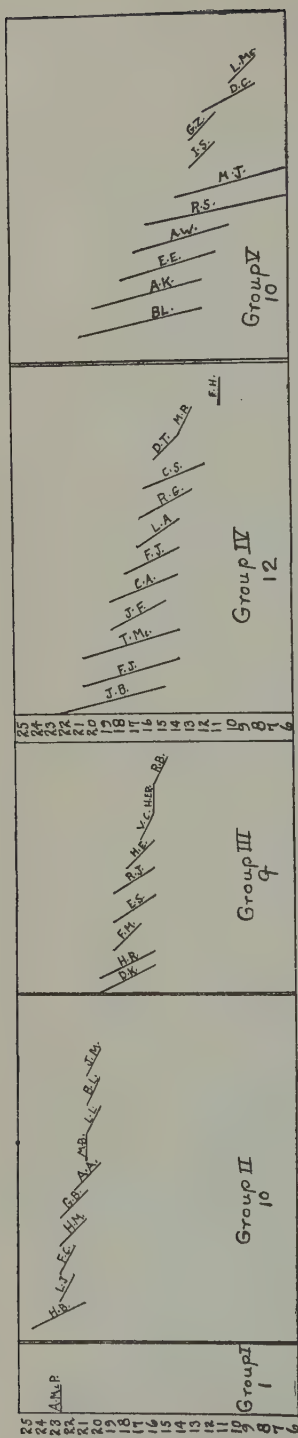


Fig. 4.—Distribution of Mrs. Gross' 5A class in February test. Each pupil's score is designated by a line bearing his initials. Pupil A. McP. was the only one to attain to Group I in this test. She scored 23 attempts and 23 rights; her line is therefore a horizontal line at point 23. Pupil H. B. in Group II scored 24 attempts and 21 rights. His score is shown by a line slanting from 24 to 21. The greater the inaccuracy, the steeper the slant. Note the long slanting lines in Group V.

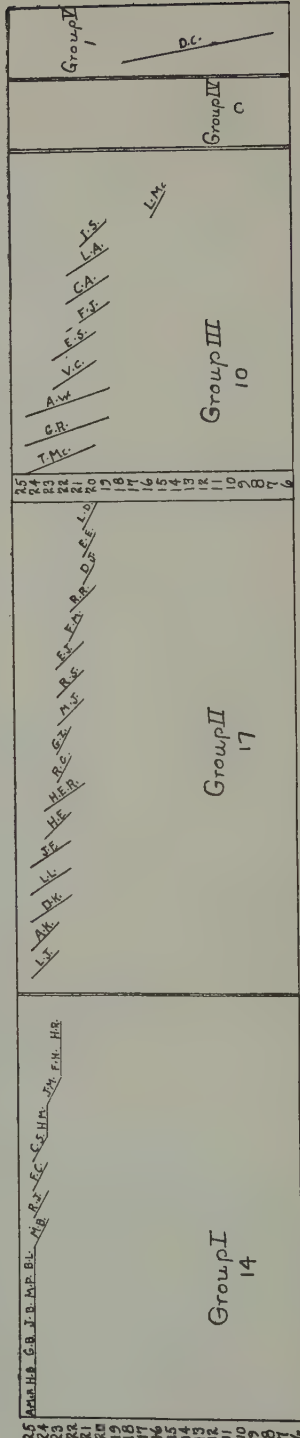


Fig. 5.—Redistribution of the same pupils shown in Figure 4, as a result of the April test. The individuals may be identified by their initials. The number of pupils in Group I has advanced from 1 to 14; Group II from 10 to 17; and Group III from 9 to 10. Group IV has been entirely eliminated, while Group V shows one lone survivor, who, in spite of individual diagnosis and remedial treatment, was unable to advance. (See Room 103, fig. 3.)



Figures 4 and 5 show the "group-individual" graph of a 5A class taught by Mrs. Helen Gross. This class won the distinction of making the greatest gain, a total of 363 points.

A number of reasons were assigned by the teachers for the improvement shown. The principal reasons were:

1. Consciousness of objectives on the part of each child which put purpose into his drill work and individual satisfaction in definite achievement.
2. The stimulation afforded by the "Group-individual" graph.
3. The use of the Courtis Standard Practice material which individualized the drill in terms of pupil capacity.
4. The use of pupil teachers.

Throughout the entire campaign there has been a healthy, lively interest in the project. In no case has attention been drawn to the weak group in such a way as to emphasize its position. The attention has been focused on help for the individual, and a sincere effort has been made to meet his special needs.

Not only have the children received benefit, but the experience has been a helpful one to the teachers. We appreciate more fully than ever the value of individualizing instruction according to the needs of the pupil; in other words, of "oiling the machinery where it squeaks." We have conserved our teaching energy by utilizing the teaching power of the stronger pupils, and have seen that the coaches improve as much as their charges. We have gained a more sympathetic understanding of the child who stumbles along haltingly and a clearer insight into some of the difficulties that beset his path. We are convinced that many children who are apparently deficient in arithmetical ability have within them the power to improve if their difficulties are understood and if the instruction is adapted to their needs.

## CHAPTER VIII

### ORAL READING IN THE ELEMENTARY SCHOOL AND ITS SUPERVISION

C. R. STONE

*Formerly Principal, Gardenville School, St. Louis, Missouri*

THE RECENT scientific studies in reading have aroused an unusual interest in the problems of teaching reading in the various grades of the elementary school. This interest is evidenced by the unparalleled amount of material on reading recently published in research monographs, educational journals, and method texts. The following special method books on reading have appeared within the last two years:

Germane and Germane, *Silent Reading*, Row Peterson.

Leonard, S. A., *Essential Principles of Teaching Reading and Literature*, Phila., Lippincott, 1922, 460p. \$1.80.

Pennell and Cusack, *How to Teach Reading*, Houghton-Mifflin.

Smith, W. A., *The Reading Process*, N. Y., Macmillan, 279p. \$1.40.

Stone, C. R., *Silent and Oral Reading*, Boston, Houghton-Mifflin, 1922, 324p.

Wheat, H. G., *The Teaching of Reading*, Boston, Ginn, 1923, 355p. \$1.60.

Attention has been focused especially upon silent reading as a process and as a type of method clearly differentiated from oral reading as a process and as a method of teaching reading. In this unprecedented interest in new methods of teaching reading, two dangers are being pointed out by thoughtful school people. In the first place there is the danger of throwing overboard too hastily and too completely the oral-reading methods of the past by enthusiasts for silent reading. In the second place, there is the danger that the essential worth and importance of the newer silent-reading methods are getting across to the rank and file of classroom teachers much too slowly.

Part One of this article reports the findings of a study made to determine the relative emphasis that is being given throughout the country to oral and to silent reading in the middle grades and the characteristics of the oral-reading methods that are in use. Part Two discusses the functions of oral reading in the various grades of the elementary school and its supervision by the principal.

## PART ONE

*A questionnaire to one hundred elementary school principals—*By means of the assistance of the editor of this Yearbook, five copies of a questionnaire were sent to each of 100 elementary school principals who are members of the Department of Elementary School Principals of the National Education Association and who were selected at random so that practically all the States would be represented. Each principal was requested "to visit five reading recitations in the fourth, fifth, and sixth grades without previous knowledge of the type of lesson to be given and without previous knowledge of the visit on the part of the teacher, and to fill out the five copies of the questionnaire and mail them within ten days after the receipt of this letter."

Reports were received on 228 recitations visited by 50 elementary school principals representing all sections of the United States.

*Relative emphasis of silent and oral reading—*One of the purposes was to determine the extent to which the silent-reading method not involving a consecutive oral reading of the material is being used in the middle grades. Of the 228 recitations observed 105 were classified by the principals under the silent-reading type and 123 under the oral-reading type. This is no doubt a fairly accurate index as to the relative emphasis of silent and of oral reading in the middle grades throughout the country in the better class of schools.

The reports and, in a number of cases, accompanying letters show that progressive schools in many centers are using silent-reading methods. However, the reports as a whole show that oral reading is still the dominant method in the middle grades, whereas the best authorities now agree that the dominant method in these grades should be that of silent reading.

*Relative emphasis on audience and non-audience oral reading—*Another purpose of the study was to determine the characteristics of the oral-reading methods in use in the better schools throughout the country. Practically all writers dealing with the subject of oral reading in relation to the teaching of reading have emphasized the importance of the audience situation. The principals were asked to classify the oral-reading recitations observed under two types, as follows:

A. *Audience*—Under this plan the reading is done by the pupil to an audience that has not read the material which the pupil reads orally. The audience may be another class, a group within the class, or some one or more other persons.

B. *Non-audience*—Under this plan each pupil and the teacher have the same material in hand and the oral reading proceeds in such a way that there is no one to constitute an audience who is wholly dependent upon the reader for the thought.

Of the 123 oral-reading lessons observed by the principals only thirty were classified under the audience type.

*Audience reading plans*—In handling the audience type of oral-reading lessons, the principals were asked to “explain briefly the plan used for having an audience situation.” In seven of the thirty audience-reading lessons reported the plan of providing the audience situation was not made clear. In most of these it seemed doubtful that there was a real audience situation as previously defined.

There were six lessons of the group-to-group type. Under this plan a group of pupils within a class or room of pupils divide a story or other unit and read it to the remainder of the class or room. The latter have not read the material and do not have the material before them.

Another type of audience reading reported involved the use of one, two, or three copies of the material read. The pupils took turns until the unit had been completed. The reports show six lessons of this type. Three copies are best for this plan, one for the teacher, one for the reader, and one for the next pupil who is to read.

There were seven lessons reported involving the reading to the class of individually selected units. In one report each of several pupils selected a poem. In other reports selections from library books provided the content of the reading lesson.

The fourth type of audience reading reported is likely to be merely a pretense at providing an audience situation. In four lessons reported the pupils closed their books while one of the pupils read to the others. The weakness of this plan is that the audience is not sufficiently dependent upon the reader for the thought and the pupils are too anxious to read for themselves at every opportunity. The reader is also likely to feel that it is only a pretense at audience reading.

Considering the small amount of audience reading in the total of the oral-reading lessons, one is forced to conclude that the importance and the possibilities of providing the audience situa-



tion in most of the oral reading lessons in the middle grades has not been put across to the rank and file of classroom teachers.<sup>1</sup>

*Values and legitimate uses of the non-audience type of oral reading*—As a basis for evaluating the 93 traditional oral-reading lessons, an analysis of the values of this type of oral reading will be made. In the primary stage of learning to read, when the reading habits are relatively immature, the traditional oral-reading method may be used to advantage in developing facility in word recognition and in laying the foundations for proper eye-movement habits. Teachers should work for fluency in oral reading as a means of developing the proper speed and regularity of eye-movements. After the pupil has reached a certain stage of maturity of reading habits, over-use of oral reading tends to slow down the rate and interfere with the growth in facility and power of comprehension. In the middle grades, then, the traditional oral-reading method may be used to good advantage with special groups of poor readers who are still in the primary stage of learning to read.

Another legitimate use of oral reading is in the teaching of poetry. The values of poetry are primarily auditory and these auditory and feeling values will be realized best by the teacher reading the poem as a whole to the pupils and then having the pupils read it orally as it is studied somewhat more in detail. The same applies to the intensive treatment of artistic prose. The social values of oral reading may be realized best in the audience type of oral reading.

*Characteristics of the 93 traditional oral-reading lessons*—In thirteen of the ninety-three non-audience oral-reading lessons, the material used was poetry. In most of these the teacher's reason for having the material read orally related to the development of appreciation of the poem. When a teacher has a clear understanding of the values of oral reading and has a definite aim in using it with a particular unit of reading matter the use is likely to be a commendable one.

In the remaining eighty oral-reading recitations prose material was used. In the majority of these much more could have been accomplished by using silent-reading methods. The accuracy of this statement can be best substantiated by a consideration of the reasons given by the teachers for having the material read orally.

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<sup>1</sup> For further suggestions in detail see *Silent and Oral Reading*, by C. R. Stone, Chapter V: Plans for Providing the Audience Situation in Oral Reading.

The following is a classification of the teachers' reasons for having the material read orally:

1. For developing skill in enunciation, pronunciation, expression, fluency, and other elements of oral reading... 38
2. To aid in thought getting..... 14
3. Too vague or exceptional for classification..... 14
4. To test comprehension..... 7
5. For special help to poor readers..... 3
6. For word study..... 3
7. For social values..... 3
8. To develop appreciation..... 1

It is evident that the objective that was uppermost in the minds of more teachers than any other was that of developing good oral readers. In the middle grades this should be accomplished almost entirely through audience reading. A study of the fourteen lessons in which the teacher had the material read orally to aid the pupils in getting the thought reveals the fact that probably in most of these cases the reading matter was too difficult for the pupils. The best authorities are now agreed that the development of power in comprehension can be best accomplished through silent-reading methods. The seven teachers who were having the material read orally to test comprehension were of course using a crude and wasteful means of testing comprehension and need to become familiar with the new methods of testing comprehension in silent reading. It is my judgment that not more than ten of the reasons given for having the material read orally were sufficient to justify the use of this slow method in the middle grades.

*The slowness of the oral-reading method*—The danger of the over-use of oral reading in the middle grades is seen when we consider the slowness of the process. The average length of period of the lessons observed was thirty minutes and the average number of pages of prose material read was between four and five pages. In some cases only one or two pages were read. It is evident that in a school where the pupils proceed in their class reading at this rate day after day for year after year it is not surprising that the product is a large percentage of slow, plodding readers with a low degree of facility and power in comprehension. The movement for new methods of teaching reading in the middle grades emphasizes the importance of extensive reading. In the silent-reading methods, either where the pupils do the silent reading in the recitation period or during the study period, it is possible to average from two to five times as much material as in the oral-reading lesson. From the standpoint of

realizing both content and training values it is better to use easier material and cover more ground. This tends to throw the emphasis more upon the larger thoughts and values and less upon isolated consideration of words and details. It tends toward the use of the method of the whole in place of the piecemeal analytical method characteristic of the traditional oral-reading method.

*Summary*—The following is a brief summary of the conclusions of this study:

1. While silent-reading methods are being used to considerable extent in the middle grades in the better class of schools throughout the country, the traditional oral-reading method is still the leading one.

2. Audience reading is being used to a small extent, but by and large the importance and possibilities of providing the audience situation in the oral-reading lessons is not sufficiently realized by the rank and file of classroom teachers.

3. The reports of the lessons in which poetry was the subject matter show that in the main the teachers understood the relation of oral reading to the problem of developing appreciation.

4. Judging from the small amount of material covered and the teachers' reasons for having the material read orally, one is forced to conclude that the traditional non-audience oral-reading lesson proceeds by a slow, analytical, piecemeal method entirely inadequate in developing good audience reading, skillful silent reading, or in realizing the content values that should be realized in the middle grades through extensive reading.

## PART TWO—ORAL READING AS A SUPERVISION PROBLEM

The editor of the Yearbook has suggested that I give an account of my experiences in relation to oral reading as a supervision problem during the last ten years as elementary school principal in St. Louis. This problem naturally divides into a number of subsidiary problems. It is always well to lay a foundation before trying to build a house. So there is the problem of getting teachers to understand and appreciate the general aims of the reading course as outlined by specialists in this subject in the light of recent research studies and the best educational thought of the day. Then there is the problem of getting teachers to understand and appreciate the true functions of oral reading in relation to these objectives, particularly in their respective grades. But it is much easier to learn theory than

it is to put it into practice. The problem of working out devices and details of new and improved methods is one that demands the constant and coöperative efforts of the teacher and the supervising principal.

*General aims of the reading course*—The general aims of the reading course may be briefly summarized as follows:

1. To develop skillful silent-reading.
2. To develop ability to read to an audience.
3. To establish permanent reading interests and develop reading appreciations.
4. To provide extensive vicarious experience through reading.
5. To inculcate fundamental behavior attitudes and ideals through intensive and extensive reading.

Space does not allow a detailed discussion of these aims, but it is fundamental that teachers be led to proceed intelligently in modifying long established practices, and this can only be done when there are common general objectives in the minds of both the teacher and the supervisor.

*Functions of oral reading*—Oral reading as an end in itself is of value only as a means of conveying thought and feeling to an audience of one or more persons. It should be the aim of the school to develop this ability to a reasonable degree of perfection in all pupils except those with the handicap of speech defects.

But oral reading has important functions in relation to other objectives. Skillful silent reading is a relatively mature process. In the primary stage of learning to do skillful silent reading, the traditional non-audience type of oral reading has important functions. They may be briefly outlined as follows:

1. As an aid in developing facility in word recognition.
2. As an aid in developing good initial eye-movement habits.
3. As an aid in comprehension by serving as an intermediary between words and expressions known orally and their unknown printed symbols.

The primary stage of learning to read may be considered as mainly an oral reading stage. While large emphasis should be placed upon the thought of the reading matter, the teacher may legitimately work for fluency in oral reading as an aid in laying the foundation of fundamental reading habits.

But teachers in the primary grades should be led to realize the limitations and dangers of oral reading. While it is a reliable check upon ability to pronounce words and a reliable index of speed of reading in these grades, it is not an adequate check



upon the child's understanding or comprehension of what he reads. The oral reading must be supplemented by questions and other comprehension checks and silent-reading devices must be utilized for developing facility and power of comprehension. There is always danger that the child's ability to recognize and pronounce words will outrun his ability to attach meanings to phrases and sentences. An important problem of the supervisor is that of seeing that the primary teachers are well grounded in an understanding of the values and functions of oral and silent reading in their respective grades. Until the child reaches a certain stage of reading maturity, oral reading is a valuable means of developing speed in reading. But beyond this point the possibility of speed development in silent reading far outruns that of oral reading. Oral reading is the best means of speed development in the first grade and early part of the second, but silent reading is the better means above the second grade. But even in the third and fourth grades the teacher should have special oral reading work with small groups of slow, laborious readers and should work for fluency in their oral reading.

The functions of oral reading in the middle and upper grades may be briefly outlined as follows:

1. For developing appreciation of poetry.
2. For developing ability to read to an audience.
3. For remedial work in aiding to develop fundamental reading habits with small groups of poor readers still in the primary stage of learning to read.

*Familiarizing teachers with the general aims of the reading course and the functions of oral reading*—Teachers were led to see the relative functions of oral- and silent-reading methods in relation to the general aims through being encouraged to take extension courses dealing with the psychology and pedagogy of reading, through teachers' meetings, and through informal conferences with individuals or small groups of teachers. These general conceptions are assimilated only through repeatedly viewing them in relation to details of methods and practices. The working out of the details of newer and improved methods must go hand in hand with the development and mastery of foundation principles.

*Supervising oral reading in the lower grades*—One means used to encourage a fluent type of oral reading was to conduct an occasional informal oral reading test in each of the lower grade rooms. This was done by having the class turn to some story which they had recently read and having the pupils read in turns,

each reading a few sentences, while a letter grade was entered in the class book for the pupils so as to classify them as excellent, superior, medium, inferior, or poor. This was an opening wedge for a discussion with the teachers as to what are the factors involved in good oral reading. A study of the Gray Oral Reading Test and directions for using it gave light concerning the elements that should be taken into account in judging the oral reading.

Once I asked a teacher to send me two of her best readers. I measured their oral-reading by the Gray Test with the result that one made a very high score and the other made a relatively low score. The latter pronounced his words accurately, but was a typical word reader and consequently his slowness kept his score down. He lacked fluency. This experience helped the teacher in learning how to analyze the oral reading of her pupils and she became awake to the fact that fluency is quite as important as accuracy of pronunciation or expression.

As the teachers became interested, they agreed to measure the best three and the poorest three in each class by the Gray Oral Reading Test. The results of this showed that the best readers in the upper first grade were better readers orally than the poorest ones in the third grade. This was an effective means of getting across the feeling of need for varying the method according to the needs of the pupils. Most of the teachers adopted the plan of dividing the room of pupils into several groups so that more difficult material could be used and more silent reading done with the better readers, and easier material and special remedial devices used with the poor readers.

Informal rate and comprehension tests were given and their correlation with oral-reading ability studied to illustrate the danger of depending upon oral reading as an adequate test of the child's understanding of the reading matter.

*Supervision in relation to audience reading*—Teachers will much more readily modify practices if new methods are demonstrated for them and if material for putting new practices into operation are made available. In the stage of introducing audience reading, I made a practice of going to the rooms and conducting an audience reading lesson occasionally. The school was supplied with dramatic readers and certain other books in sets of ten copies. Teachers soon learned how readily certain of these small sets of books could be used for the group-to-group audience reading. The following are the small sets of books

available at the Gardenville School, St. Louis, for group-to-group audience reading:

## BOOKS FOR GROUP-TO-GROUP AUDIENCE READING

### SECOND GRADE

Little Dramas for Primary Grades.....	American Book Company
Playtime Stories .....	American Book Company
Peter and Polly in Spring.....	American Book Company
Peter and Polly in Summer.....	American Book Company
Children's Classics in Dramatic Form, I.....	Houghton-Mifflin

### THIRD GRADE

Peter and Polly in Autumn.....	American Book Company
Peter and Polly in Winter.....	American Book Company
Animal Fables .....	American Book Company
Play Awhile Stories.....	Little Brown
Mother West Wind's Animal Friends.....	Little Brown
Going to School in Animal Land.....	A. Flanagan
Children's Classics in Dramatic Form, II.....	Houghton-Mifflin

### FOURTH AND FIFTH GRADES

The Pig Brother and Other Stories.....	Little Brown
Merry Tales .....	Little Brown
The Adventures of Paddy the Beaver.....	Little Brown
The Adventures of Reddy the Fox.....	Little Brown
The American History Story Book.....	Little Brown
Children's Classics in Dramatic Form, III.....	Houghton-Mifflin
Thirty More Famous Stories.....	American Book Company
Beyond the Pasture Bars.....	Century Company

### SIXTH, SEVENTH, AND EIGHTH GRADES

Children's Classics in Dramatic Form, IV and V.....	Houghton-Mifflin
The Fall of the Year—Dallas Lore Sharp.....	Houghton-Mifflin
The Spring of the Year—Dallas Lore Sharp.....	Houghton-Mifflin
Summer—Dallas Lore Sharp.....	Houghton-Mifflin
Winter—Dallas Lore Sharp.....	Houghton-Mifflin
Heroes Every Child Should Know.....	Houghton-Mifflin
A Watcher in the Woods.....	Century Company
Lives and Stories Worth Remembering.....	American Book Company
Long-Ago People .....	Little Brown

A number of other plans for securing the audience situation were developed through the cooperative efforts of the teachers and the principal. Space does not permit more detail here, but reference was given in Part One to this material already in print.

*The problem of overcoming traditional practices of over-use of oral reading in the middle and upper grades*—It is not an easy thing to substitute new methods for long established practices. The study reported in Part One shows that, in spite of

all that has been said and written in the last ten years on the necessity of radical modification of the traditional oral-reading method, especially in the middle and upper grade, probably the majority of the schools of the country are yet committed to a reading program that has entirely too much of the traditional non-audience oral reading. A few years ago, Professor Hosis made a valuable study of school reading, including the observation of eighteen lessons in reading in the middle and upper grades. With reference to common practices of teachers he says:<sup>1</sup>

Both the stenographic reports themselves and the quantitative results of the analysis of them seem to indicate a tendency in practice to deal with details at the expense of the whole. . . . Apparently the reading-course in the intermediate and upper grades of the American school is still largely a formal course in oral reading, the study of vocabulary, and the acquiring of miscellaneous knowledge, rather than a course in the interpretation and enjoyment of literature.

The supervising principal must accept responsibility for the situation in his school if his teachers have not kept pace with the progress of the science of education and the art of teaching in relation to the teaching of reading. There is an abundance of pedagogical material now available in scientific monographs, special method books, and educational magazines, giving fundamental principles and detailed methods based upon these scientifically formulated principles. The encouragement of professional reading, not a burdening amount but carefully selected units, was one of the means used to point the way to better things. The *Elementary School Journal* and the *Journal of Educational Method* were available to the teachers in the reference room and occasionally articles from other educational magazines were circulated among the teachers. Teachers were encouraged to try out plans described in books or articles and other teachers were given opportunity to visit and observe the new plans.

Furthermore, the principal must take the initiative in planning new devices and methods and must be able to demonstrate these in the classroom. But here there is danger that the teacher will be content to imitate the principal unless the foundation principles are made clear to her and the relation of a particular method to these general and specific aims pointed out.

At the Gardenville School, St. Louis, the reading work in the middle and upper grades is about two thirds silent reading instruction and about one third oral reading. The oral reading

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<sup>1</sup> Hosis, Dr. James F., *Empirical Studies in School Reading*, published by Teachers College, Columbia University, New York, N. Y., 1921.



consists almost wholly of the audience type and of oral reading in connection with the study of poetry and the intensive treatment of especially fine, short, carefully selected units of literary prose in which there are prominent auditory values. The teachers of reading in that school are so familiar with such a program of reading and so contented in using the newer methods that any attempt to introduce in large amounts the traditional non-audience type of oral reading would be met with serious opposition.

*Oral reading in relation to literary interpretation and appreciation*—Enough has been said to make it clear that I believe that oral reading has a real function in the development of appreciation of the most artistic types of literature, and I think the inclusion of poetry in the strictly silent-reading texts for pupils is a mistake. I believe the final solution is to have a text especially prepared for oral reading, consisting principally of poetry and containing the principles involved in the teaching of the more artistic types of literature, another text for training purposes in silent reading, and an abundance of supplementary books for extensive reading.

Space does not permit giving a detailed discussion of teaching poetry and other units of the more artistic types of literature.<sup>1</sup>

In conclusion, it might be stated that one of the most effective means of getting the new methods of teaching reading into operation is through the special courses in this field in schools for teachers. Chicago and Columbia Universities, Harris Teachers College, St. Louis, and other institutions now have such courses. A fundamental part of such courses is the illustration of the methods by demonstration classes. Both teachers in preparation and teachers in service need such a course. The popularity of these courses when offered is an evidence of the wide-spread interest in the new methods in reading and the desire of school people to make use of the results of scientific investigation.

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<sup>1</sup> Stone, Clarence R., *Silent and Oral Reading*, Chapter VI, *Appreciation and the Teaching of Poetry*, Houghton-Mifflin Co.

Halliburton and Smith, *The Teaching of Poetry in the Grades*, Houghton-Mifflin Co.

## CHAPTER IX

### WHAT DO BOYS READ?

GEORGE MILLARD DAVISON

*Principal, Public School No. 109, Brooklyn, New York*

THE purpose of this paper is to present a brief discussion of the following points: (1) Boys are avid readers; (2) Boys demand action in their literature; (3) How this requirement is being met; and (4) A recommendation.

Going over in retrospect my adult interest in what boys are reading, it seems to have been renewed to greater activity about the time, when in an elementary school where one roof sheltered not hundreds but thousands of pupils, I observed the files of the boys' magazines represented in the school library. The striking thing about them was that one was well worn—almost in rags, the other in a good state of preservation. I wondered why.

Accordingly, I secured copies of the two periodicals and studied their contents. While so engaged, there came to me the clear realization that, contrary to prevailing impressions, a large part of a boy's spare time is spent in reading. Perhaps the reason this fact escapes us is that a boy reads quietly, curled up in a chair or on a couch, and is not much in evidence. Your average boy does not care to be known as a bookworm. He is inclined to be secretive in this direction at home for obvious reasons, and oftentimes he does his reading in his own room when the lights are supposed to be out. Even the throngs of boys who frequent the all too scarce children's libraries (Are there more than two in all America?) bear eloquent testimony to his desire to read. Because we hear and see the shouting, running, playing boy, we think of him as the actual boy. But any of us can find that, if a boy makes out a time card, such as is used by factory workers, it will be found that much of his recreational time is used in reading.

With this fact clearly in mind, I went ahead with my study of the two boys' magazines to find just what they offered the boy and why one seemed to be preferred to the other. Just here a tribute is due to the boy's discrimination. The magazine which he read and which he so evidently recommended to his friends till it was almost in rags was one in which the articles and stories had not only interest but much worth. The other magazine seemed to leave with me no impression of weight after I had finished an issue. There was nothing in it that one would

care to remember. If a boy stopped to analyze these magazines he might compare the difference to the feeling of two hungry lads at midday, one of whom had to be content with a cream puff while the other ate a big brown bread club sandwich. The former carries the disappointed feeling of unappeased hunger; the latter can do the rest of the hike to camp in comfort. It was also interesting to note that the boy wants and appreciates action. This is a fundamental consideration. He wants a lot of it, because therein thrill and excitement are found. The boy is looking forward to the time when he will play a big and active part in the man's world. Consequently it is very satisfying to him to live the life of his hero in the printed page, the life which he hopes in the future actually to share.

But thrills and action are not sufficient. They do not carry the boy far enough to enable him to distinguish between good and evil, between the inspirational and helpful on the one hand and the paltry and degrading on the other. No magazine that has come to my notice satisfies my desire to see the boy provided with an adequate reading program which will mould character and develop the ideal type of Americanism and thus train him when he comes to book reading to reject the vile and choose the best. At present, he too frequently lacks this power of discrimination; consequently, the books which fall into his hands and in which the heroes do things are part of a world which he "sees through a glass darkly," and in too many instances he does not pass from the Nick Carter swamp to the high ground of Treasure Island. Therefore, in such cases, he becomes an unconscious victim of the pirates, who, for their own monetary gain, rob him of his ideals and of the possibilities which these ideals carry.

A copy of a book with brilliantly covered covers, the contents of which purported to be about the criminal world, recently came to light in a classroom. The imprint on the title page showed that it was prepared and marketed by Blank, Blank, and Co., of Lower Manhattan. The lurid pages were undoubtedly prepared by a person who produced "pot boilers" regardless of conscience. Facts were of little consideration, and moral evaluations were wholly lacking. A letter of protest to the publisher brought back the reply that they were in business to sell books and that they would print and sell any other book which would command as ready a market as the one in question. This information was none the less amazing because of the fact that these publishers had been selling reputable books for half a century.

At this point, acting on the advice of a friend, I visited the warehouse of a large book and magazine distributing concern in my home town. There I came to realize that the juvenile reading problem for both boys and girls is vastly more serious than I had ever dreamed. One of the officials assured me that there is an active distribution of literature "which his boy does not read." I cannot help wondering how he knows so definitely what his boy reads. I hope he will never find that his belief is an illusion. He further told me that a new magazine of sex stories which his concern helps distribute and which has a circulation of nearly two million is read chiefly by adolescent girls. I spent a half hour wading through its nauseating pages. The next day there fell into my hands a copy of a trade journal called the *Author and Journalist*, dated February, 1924. I offer herewith the following sentences from its columns:

It is necessary to acknowledge that in the efforts of both our writers and publishers, idealism and ethics enter but little.

The editor of ———— recently at the Players Club in New York outlined his needs as follows: "We want the light type of sex story. The French sex story written in a light vein is the type of story particularly wanted. We want stories for this magazine which reveal life; not sordid realism, but tales of sex complications as they often exist in actual life."

Before leaving the warehouse above mentioned, I went to the book floor. In a large wall case, I saw 450 sample copies of paper-covered books made to retail at fifteen cents each after paying the retail dealer approximately 40 per cent profit. I saw the shelves in the shipping department where orders for these books are filled. There was no dust on the top books of the sections examined, and the place showed genuine activity. Not one volume in the entire 450 was worth reading. Much of it was pernicious, and it all helps toward mental dissipation. I am sure that there is no exaggeration in the statement made to me that truck loads of this material are daily shipped out to our boys and girls by this one house.

I do not need to tell you further what is read by multitudes of our boys and girls. We laboriously construct reading courses for them and check up on the degree to which they pursue these courses. We require written essays and oral compositions and term reports on what they have read. But all the time from this great sewer that goes into every house and against the foul gases of which no trap was ever invented, our boys and girls are taking in and filling their imaginations with pollution.

Shall we sit supinely by and watch the process? Is there no remedy? The New York City Principals' Association, through



one of its committees, sent to a great organization that works for boys a letter from which the following slightly modified extracts are taken:

Boys will seek naturally for that which they prefer and, at the same time, they are keen judges of values. A boys' magazine, to succeed, must be absolutely the best of its kind. There are numerous boys' papers of various sorts and conditions; some, very good and some, vicious. American boys are in need now, as never before, of a magazine which will compel their attention and which will so far outdistance all competitors as to have no rivals.

Command the services of the best writers and the best artists which the Nation affords. Secure contributions from successful men of affairs in all lines of activity, from statesmanship on the one hand, to business and professional activities on the other.

Our American boys showed on the fields of France what they can do and they showed how much our Nation depends on them. The Nation depends on them no less now, and we owe it to them to place in their possession ideals that shall mould their lives in a way that will express itself satisfactorily when they come into active participation in civic and governmental affairs.

Beyond any question there exist thousands of boys whose parents, for love of them, would gladly finance a proposition of this kind when it is put into tangible form and a prospectus laid before them. A million copies of such a paper circulated every week would be a small number in comparison with the possible circulation, but it would do more to develop manhood and civic virtue than any other single agency.

The vital importance of developing a periodical that will force its way into the hands of millions of boys is a matter worthy of the attention of the strongest intellects, the most devoted patriotism and the deepest spiritual insight that our nation has to offer. Multitudes of boys are reaching vainly for such a paper today. They cannot, they must not be denied.

We seem to think more about the needs of boys than of girls, but as has been mentioned above, the present crisis is detrimental to them both. Whatever is done to provide better reading for boys must also include girls if its mission and its effect are to be of maximum benefit. A magazine for boys that will make the broad appeal outlined above will undoubtedly secure an unparalleled response. Such an effort should be accompanied or followed by a similar one for girls on a platform no less appealing. The home, the church, and the school are today waging a desperate battle against the powers of darkness for the integrity of our youth. Picture the effect when there is thrown into the fight this national, yes, this international ally, published in fifty different languages, if you will.

## CHAPTER X

### IMPROVING SOME FUNDAMENTAL READING HABITS IN GRADES TWO AND THREE

WILLIAM A. KING

*Principal, Concord and South Park Schools, Seattle, Washington*

**A**N EXPERIMENTAL study in remedial reading in grades two and three was recently completed by the Research Committee of the Seattle Principals' Association. The investigation ran for a period of ten consecutive weeks.

This study was conducted for the purpose of improving certain fundamental reading habits that must be fixed during this period as a foundation for successful reading at the higher and broader levels. Three definite lines of work were pursued. They may be indicated as follows: (1) Exercises to improve the accuracy and adequacy of word recognition; (2) exercises to improve the span of recognition; and (3) exercises to improve thoughtful interpretation.

The decision to depend upon this three-point plan for improving the reading ability of second and third-grade children was reached through a study of Dr. William S. Gray's monograph, *Remedial Cases in Reading: Their Diagnosis and Treatment*. As stated in that investigation, exercises to improve the ability to recognize words, to improve the span of recognition, and to improve comprehension were the ones most commonly used in the various individual cases reported. In this study an attempt has been made to select groups of children by means of a battery of tests and to minister to their needs through one or more of these three types of work.

A second feature of this experiment relates to the organization of instruction. In the three larger schools the work was divided among three teachers, one taking the work in phonetics, a second, the span of recognition, and a third, comprehension. In the two smaller schools, the work was assigned to two teachers. One took all the phonetics work and her own work in comprehension, while the other was given all the span of recognition work plus the comprehension work in her own room. The classification of pupils ranged thus:

School "A".....	2A, 3B, and 3A.
School "B".....	Three rooms of 2A pupils.
School "C".....	2A, 3B, and 3A.
School "D".....	2A, 3A.
School "E".....	2A, 3B, and 3A.

The tests used in determining the remedial groups were the Gray Oral Reading Test, Burgess Scale for Measuring Silent Reading, Picture Supplement I, Monroe Silent Reading Test, Form I, and an informal reading test designed to measure speed and comprehension of simple story material. A separate informal test was prepared for each class. All these tests except the Monroe were used in all classes, the Monroe being used only in the 3B and 3A classes. The Gray Oral Reading Test was given in all buildings by one individual. However, those children who showed marked ability in oral reading were not completely tested and their scores were not computed. Some of these pupils were assigned to remedial classes but not to work in phonetics.

TABLE 1.—THE WEAKNESSES OF INDIVIDUAL PUPILS WHICH THE DIFFERENT TESTS WERE EXPECTED TO REVEAL

Test	Phonetics	Span of Recognition	Comprehension
Gray Oral Reading Test.....	*	*	
Burgess Test.....			*
Monroe Test.....			*
Informal Test.....		*	*

It is the writer's opinion that the Gray Test is very useful in helping to locate children whose span of recognition is too meager. A lack of satisfactory rate in reading, disclosed plainly by the informal test, was charged largely against the span of recognition factor. In all, 422 children were tested. Following the testing, conferences were held to determine the remedial classifications, and also to determine those children who should not be included in the study on account of low intelligence. Some of these children had been given the Binet Test, but others were eliminated through conferences with their teachers.

TABLE 2.—THE DISTRIBUTION OF THE CHILDREN BY CLASSES, THE NUMBER OF REMEDIAL PUPILS, AND THE NUMBER OF CHILDREN ELIMINATED

	Grade 2A	Grade 3B	Grade 3A	Total
Number of children.....	228	67	127	422
Number in remedial classes.....	75	21	26	122
Number eliminated.....	29	10	4	43

The 10- or 15-minute periods were arranged in one of two ways. The two types of organization will be shown by concrete example:

*School A*—(10-minute periods.)

Span of recognition.....	9:55 to 10:05 A.M.
Comprehension .....	10:05 to 10:15 A.M.
Phonetics .....	10:15 to 10:25 A.M.

This plan enabled children to engage each day in all three lines of work if necessary.

As stated in a report from that school, "Children know the time and pass quietly on their own responsibility."

*School E*—(15-minute periods.)

In this school the three groups met simultaneously three times a week. At first each child was assigned to the kind of work he seemed most to need. At intervals of three or four weeks, shifts were made among the groups. These were determined mainly by the test scores but partly by conferences with the teachers. As a rule, the non-remedial children engaged in silent reading during the remedial periods. Pleasure readers were available for their use.

It will not be possible in this article to indicate specifically the materials of instruction. However, some information under each type will be given.

*Phonetics*—I. A wealth of suggestions for remedial measures in word recognition were drawn up by Miss Helen Reynolds, head of the Department of Primary Method, Seattle Public Schools, for use in this study. These came largely from the Seattle Course of Study in Reading for Kindergarten and Primary Grades. An outline of the suggestions will suffice:

1. Test children individually upon ability.

- a. To hear sounds.

- b. To give sounds when the symbols are presented.

2. Record his progress in his "Word Study Book" in which should be placed a dictionary of sounds taught, with illustrations of *words familiar to him*.

3. Learn three rules of phonics. This refers to those three significant rules which have been found to cover from 45 to 50 per cent of all the words children meet in their reading.

4. Place these rules in the "Word Study Book." Collect illustrations from *material read or familiar words given by the children* and place in the book under each rule.

5. Place in the "Word Study Book" the following list of irregular families not covered by the three rules. Collect illustrations from familiar words.



Here followed the list taken from an article by Elda L. Merton, *Elementary Principals' Second Yearbook*, 1923, page 361.

6. Teach children to break up words into parts.

7. Train children from the beginning to find their own difficulties. The teacher in her preparation anticipates these problems and decides upon the particular bit of phonetic knowledge which will help solve the difficulty.

II. The summaries in Dr. William S. Gray's Monograph on remedial reading entitled (1) Exercises to Increase Accuracy of Word Recognition and (2) Exercises to Increase Ability in Word Recognition were issued to the teachers.

III. Miscellaneous.

1. Word lists were made up from the Thorndike lists.

2. Some teachers used the phonetics chart developed in Rochester, New York.

3. Each teacher already had series of words on cards that she had used formerly.

4. Many of the other teachers working in the investigation submitted to the teacher of phonetics words that were to be taught during her period.

*Span of recognition*—1. The chief source of material was the Horn-Shields Flash Cards. Each teacher was supplied with the full set and asked to give careful thought to the most advantageous method in using the sets. The arrangement of the pupils before her and the flashing of the cards were carefully considered.

2. The Wheeler Phrase Cards were supplied to some teachers.

3. One teacher had her pupils cut phrases from old readers and paste them on pages of small books they had made themselves. Occasionally, the books were interchanged among the pupils for rapid oral reading of the phrases.

4. Sets of discarded books were distributed among the pupils. Each child had a copy and on successive pages through the book, he underlined groups of words that should be read as units. This exercise is highly valuable in improving the span of recognition.

5. The teachers were encouraged to conduct oral reading exercises to improve the rhythm of reading by thought units.

6. Toward the close of the study, it was suggested that the children should be allowed to read "easy, familiar material in order further to fix the habit of proper phrasing while reading." To quote further, "There should be as few word difficulties as possible in the selections assigned. The reading should be pleasurable, and the children should not be held accountable for strict

reproduction of that which they have read. The main point here is not interpretation, but correct grouping of thought units, or phrasing."

*Comprehension*—1. A copy of "Educational Bulletin, No. 2, Minneapolis Public Schools was supplied to each teacher. This bulletin contains a wide variety of stimulating devices and exercises that are helpful for increasing comprehension."

2. A questionnaire on "Exercises for Improving Comprehension in Reading" was sent to the second and third-grade teachers of Seattle. The compilation of their replies was made and put into the hands of the teachers. There were six pages of excellent suggestions from this source. A number of these will be given for each grade.

## GRADE TWO

### *1. Reading to comprehend a short story:*

1. Make a game of reading the short story. Teacher asks a question; then a child reads the words or phrases that answer the question. If he gives too little or too much, he is "out."

2. (For very weak pupils). Write a story on the blackboard. Beside it write questions on the story. Children write answers on paper.

3. When the chief difficulty lies in omitting or inserting words and thus changing the meaning, individual help with oral reading seems to be the most effective.

4. Write short descriptive story on blackboard. Children illustrate with crayon or cuttings.

5. Mount a short story cut from an old reader on scrap paper. Place a few good questions about it on the reverse side. Require children to answer orally or in writing.

NOTE.—This makes good seat work.

6. Dramatize certain parts of the story if possible. Types:

- a. Show how Mrs. Gray Duck waddled away.
- b. Show how the mice scampered away to hide.
- c. Show how the bear acted when he found the shoe. (One paragraph in a certain story.)
- d. Show how the dog lost his meat.

### 7. Miscellaneous:

Many teachers are using the following methods in various ways to improve comprehension:

- a. Illustration as widely as possible.
- b. Study and drills on new and unfamiliar words.

- c. Study of phrases. Horn-Shields Flash Cards widely used.
- d. Dramatization wherever possible.
- e. Silent reading, or course, predominates.
- f. Questions by pupils and questions by teacher about evenly balanced.

## II. *Reading to find the answer to a question:*

1. Have questions on some slips of paper; answers to them on other slips. Distribute these slips among the pupils. One pupil reads the question, then the one holding the answer answers it.

2. Write on the blackboard a question that requires careful reading for interpretation of the text. A child whispers the answer to the teacher. If wrong, he returns to his seat; if right, he becomes a "helper" and with the teacher passes among the other children calling for whispered answers. This continues until all have answered correctly.

3. Ask the question. Children read silently to find the answer. (A common method.)

4. If the answer can be expressed in action, let the pupil "act it out." Other pupils may guess the answer and tell what the question was.

5. Read silently sentences such as this one: Mary gave Jack a red cart.

- a. Who are the people named in this sentence?
- b. What is the boy's name?
- c. What is the girl's name?
- d. What did Mary give Jack?
- e. Which word tells you the color of the cart?
- f. Where did Mary get the cart?

NOTE.—The last question cannot be answered from the story. The child should answer or be trained to answer, "The story doesn't tell."

In this connection, teachers should read most carefully the suggestions found on pages 34 to 36 in Gray's monograph, "Remedial Cases in Reading: Their Diagnosis and Treatment." The title is "Exercises to Aid in Interpretation."

## III. *Reading for other purposes:*

1. Extensive use of Horn-Shields and Wheeler Flash Cards. Instructions accompany the material.

2. To gain speed: Have groups of children read under a time pressure giving credit to the speediest *group*. This avoids discouraging slow children as credit is given to the group, not to the individual.

3. Reading to comprehend: Write "John went to the beach. Dan went to the farm." Then write separate words of things seen on the farm and on the beach. Children answer the question, "What did John see?" "What did Dan see?", placing the words in the proper columns. Do the same with things *done* on the farm and on the beach.

4. For training in value and use of words: Write a simple sentence such as: The cat drinks milk. Erase the word "cat" and substitute several other words that are appropriate to this sentence. Do the same with the word "milk" and the word "drinks." This exercise can be further extended by using qualifying words with the subject and object.

5. Silent reading drill: To improve comprehension of a sentence misunderstood because of a small but significant word is overlooked or mispronounced.

a. Place a book *on* the table.

b. Place a book *under* the table.

c. Place a book *above* the table.

6. Drill to test the ability to recognize relationship between words: Write series of words and have children write the opposites immediately below. Examples:

high

under

rich

low

over

poor, etc.

7. To improve speed: Have frequent drill periods under time pressure. Follow with questions to test comprehension.

8. Write the following headings:

Time phrases

place phrases

manner phrases

Have children find such phrases in the reading assignment and place them under the correct headings.

### GRADE THREE

#### I. Reading to understand a paragraph.

1. Select three consecutive paragraphs in a story. Have the children read the first and third, keeping the second covered. They discover something is missing. They read again the first, following that with the second, thereby finding out the contents of that paragraph.

2. Cut paragraphs from discarded readers. Have them graded from "easy" to "difficult." Mount on cardboard. On the opposite side have a set of questions. Have children read the para-



graph and answer the questions either orally or in writing. Have them re-read the paragraph if necessary. Reproduce the whole paragraph in own words.

3. Write partial statements on board leaving blanks to be filled in with some word or phrase in a list containing correct word or phrase and several incorrect ones.

4. Make a "Movie" of the paragraph; that is, act or play some part so well the class can guess it.

5. Put a paragraph on the blackboard and separate it into phrases or thought units by vertical lines.

NOTE.—An excellent device not only for study of the paragraph but for increasing rate of reading.

6. Miscellaneous. Frequent mention of the following methods is found in the reports:

- a. Give a suitable heading for the paragraph.
- b. Find the central thought.
- c. Divide the paragraph into thought groups.
- d. First clear up meaning and pronunciation of difficult words and phrases in the paragraph.
- e. Employ graphic illustrations where possible.
- f. Use easy material within child's experience when possible.
- g. Children prepare two or three good questions on the paragraph.
- h. Teacher asks one or more questions and has children read for the answers.

## II. *Reading to answer a question requiring a judgment or opinion.*

1. Best questions are those that require the reading of a considerable amount of the text.

2. Use questions that are within the child's experience. There must be this background for the opinion or judgment.

3. Prepare a list of adjectives to describe the character under consideration. Select the right one and tell why.

4. Use question box for "why" questions. Have children draw question, look up answers, and at a later period answer their question.

5. Write on the board a list of type qualities as:

heroism                      strength                      honesty

Find a character in the story who is a type of one of these.

## III. *Reading more widely to gain information about a certain topic.*

1. Raise a question and leave it unsettled, at the same time placing within the pupil's reach material which will enable him to satisfy the desire to know.

2. Use discarded sets of readers. Prepare a card index for reference on topics treated in the different books. Interest in wider reading may be developed this way.

3. Always find out first what the children can contribute from past experience. Start the reading for further information at this point.

NOTE.—Schools that have school libraries as a part of their equipment are at a great advantage in developing habits of reading more widely to gain information on certain topics. In this connection, frequent mention is made of pleasure readers and library books in general.

IV. *Reading for other purposes*—1. Underline words descriptive of certain animals or things, such as:

a. Frogs croak, sing, walk, speak, fly.

b. Donkey: Jump, hop, sing, bray.

2. Develop word study bulletin containing rules of phonetics, words of opposite meaning, words of similar meaning, new words, etc.

3. Have children read a story silently, then pick out all the time phrases, place phrases, manner phrases, and descriptive phrases.

4. Prepare lists of words on certain subjects as, all words in the story that refer to the "Northland," etc., etc.

III. Near the close of the study, teachers were advised to reduce the use of mere devices to a minimum and to use the best available readers with particular emphasis upon the assignments and upon the diligence of pupils in reading to answer definite questions on the material read. Sometimes the questions were asked in advance of the reading, sometimes after the reading.

IV. Some of the teachers were supplied with sets of the new Buzwell-Wheeler Readers and the practice exercises that have been prepared to accompany them.

V. Each teacher drew upon her own past experience in planning various exercises to secure thoughtful reading.

The results of this study cannot be shown here by graphs as the committee originally intended they should be. This is due to lack of time. However, the tabulations made below by classes, plainly point out the improvement wrought during the period.

Medians of the non-remedial groups are also shown, but these must not be regarded as true control groups, because it may be assumed that their general intelligence is higher than that of the remedial groups.

TABLE 3.—2A CLASS MEDIANS

Tests	School A Test		School B Test		School C Test		School D Test		School E Test	
	1	2	1	2	1	2	1	2	1	2
GRAY ORAL										
Remedial only...	13 $\frac{3}{4}$	37 $\frac{3}{8}$	10	30	10	11 $\frac{1}{4}$	19 $\frac{1}{2}$	23 $\frac{3}{4}$	20	35
BURGESS										
Remedial.....	38	53	26	32	0	32	0	35	26	35
Non-remedial...	55	66	32	44	32	50	26	35	38	50
INFORMAL										
Remedial-Speed.	64	113	64	107	110	182	101	129	74	77
Non-Rem. Speed	112	138	112	140	164	234	133	179	112	152
Remedial-Comp.	B—	A	C	A	C	B	C	B	C	B
Non-Rem. Comp.	A	A	A	A	A	A	A	B	A	A

NOTE.—The Burgess Third Grade standards were used in the case of 2A classes.

TABLE 4.—3B CLASS MEDIANS

Tests	School A Test		School B Test		School C Test		School D Test		School E Test	
	1	2	1	2	1	2	1	2	1	2
GRAY										
Remedial Only...	16 $\frac{1}{4}$	30	No. 3B Class		36 $\frac{1}{4}$	48 $\frac{3}{4}$	No. 3B Class		25	43
BURGESS										
Remedial.....	44	56			13	44			32	44
Non-remedial...	44	56			35	47			50	62
MONROE										
Remedial-Speed..	45	74			82	151			46 $\frac{1}{2}$	81
Non-Rem.-Speed.	70	70			48	81			81	105
Remedial-Comp..	2	3			3	5			1	5
Non-Rem.-Comp.	4	5			3 $\frac{1}{2}$	7			4	7
INFORMAL										
Remedial-Speed..	91	107			116	123			96	128
Non-Rem.-Speed.	96	107			102	106			132	195
Remedial-Comp..	A	A			B	C			B	B
Non-Rem.-Comp.	A	A			B	B			A	A

## NOTES CONCERNING TESTS AND SCORING

1. Gray Oral Reading Test was scored as the author of that test directs.

2. Burgess Test: Picture Supplement Number 1 was used the

TABLE 5.—3A CLASS MEDIANS

Tests	School A Test		School B Test		School C Test		School D Test		School E Test	
	1	2	1	2	1	2	1	2	1	2
GRAY			No. 3A class							
Remedial only.....	38¾	41¼			16¼	31¼	20%	30	38¾	42½
BURGESS										
Remedial.....	38	62			32	38	0	32	38	50
Non-Remedial.....	56	68			47	65	41	50	56	68
MONROE										
Remedial-Speed...	46½	92			72	93	35	67½	70	130
Non-Rem.Speed...	85	92			48	81	81	107	92	128
Remedial-Comp...	5	9			1½	5½	2	4	3	10
Non-Rem. Comp...	5½	7			6	8	5	9	7	10
INFORMAL										
Remedial-Speed...	88	116			95	113	80	124	124	194
Non-Rem.-Speed...	121	158			181	195	128	179	179	194
Remedial-Comp...	B	A			C	C	C—	A	A	B
Non-Rem.-Comp...	A—	A			B	A	B	A	B	A

first test; Picture Supplement Number 2, the second test. The February credits of the table on the test sheet were used both times.

3. Monroe test was scored as the author directs.

4. Informal test: The story with questions was mimeographed on a single sheet with sufficient space between to allow for turning the questions under. At the end of one minute, the pupil marked the word reached at that moment. He then read to the end of the story, and answered the questions in writing. His score was A, B, C, etc., according as he had answered all questions correctly, (A) All but one; (B), etc.

Since it was impossible to prepare a second test of proved equal difficulty, the same informal test was used in each test. It appears that the 2A class of School "C," several of whom are foreign, misunderstood the directions the second time, as several of these children marked the last word of the test at the end of the minute. This test contained 248 words.

## CASE STUDIES

A few children during the investigation were assigned only one type of work. Table 6 indicates that the remedial work must have been an important factor in achieving improvement.



TABLE 6.—TESTS

Pupil	Class	Type of Work	Gray Test		Burgess		Monroe				Informal			
			1	2	1	2	1		2		1		2	
							Sp.-Comp.		Sp.-Comp.		Sp.-Comp.		Sp.-Comp.	
1	2A	Phoentics	0	8¾	...	...	...	...	...	...	94	B	176	A
2	2A	Span of Rec.	...	...	38	44	...	...	...	...	60	B	112	A
3	2A	Comp.	...	...	0	50	...	...	...	...	107	C	112	A
4	2A	Comp.	41¼	41¼	26	38	...	...	...	...	85	A	107	A
5	2A	Comp.	8¾	11¼	0	32	...	...	...	...	121	C	107	B
6	2A	Comp.	0	10	0	32	...	...	...	...	80	C	71	B
7	3B	Comp.	...	...	56	80	107	4	152	6	175	B	231	A
8	3B	Phonetics	21¼	32½	50	62	56	5	74	5	51	A	107	A
9	3B	Comp.	27½	27½	38	44	40	2	43	3	91	B	82	A
10	3B	Phonetics	11¼	18¾	44	56	62	4	85	5	120	A	113	A
11	3B	Span of Rec.	20	36¼	44	44	38	1	70	5	70	A	76	B

*Suggestions and conclusions*—1. Almost without exception the remedial class medians show marked improvement in speed of reading and in comprehension.

2. It appears that this improvement has not been at the expense of the non-remedial individuals. They made gratifying progress during the study.

3. As stated elsewhere in the report, it should be assumed that most of the remedial pupils have less mental capacity than the others. In view of this fact, it seems that this plan of organization, together with the types and materials of instruction employed are dependable in improving reading ability of second and third-grade children.

4. Remedial teaching is obviously intensive, arduous work. Crowded classroom conditions constitute a handicap with reference to teacher, energy, and morale. In assigning children to the different remedial groups, care must be exercised in regard to size of classes.

5. Since work in phonetics and the span of recognition may be regarded largely as remedial above grade one, every elementary school should provide the teaching skill and the materials of instruction to accomplish good results.

## CHAPTER XI

### DENVER'S TENTATIVE PLAN FOR TEACHER-RATING

EUGENE C. STEVENS

*Principal, Stevens School, Denver, Colorado*

TEACHER classification is a subject upon which there is a wide diversity of positive opinions. Probably every principal in the land has decided views on the matter. Large groups of people—principals, supervisors, directors—have assembled their judgments, struck a median, and broadcasted it for the general welfare. Superintendents have worked out plans primarily for use in the schools under their supervision. Experts, attracted by the subject, have evolved rating sheets presumed to be exceptionally scientific.

Some of these numerous schemes are simple, making no unreasonable and unnatural demands upon the rater; some are painfully complex, but not quite beyond the grasp of ordinary man; some are highly complicated, mechanical affairs that would put to rout the wisdom of a Solomon. A field so generously worked from all angles is not an inviting one for further development; still, it may possess possibilities.

Teachers readily concede that some people are more efficient than others; they probably realize that the welfare of the children requires some sort of classification upon the basis of efficiency; they recognize that a just, open, determinate classification *put on permanent record* guarantees to them, or tends to guarantee to them, protection against political intrigue, favoritism, and similar evils. But broadly speaking, the teaching staff is not wholly enamored with the rating proposition in its present status. The baneful effects of attempts to make salary adjustments upon the "merit system" is, perhaps, the chief cause of this distrust and discontent.

The establishment of a single salary schedule will remove much of this unrest. Paid upon the basis of academic and professional preparation; retained in service upon the basis of meritorious work, subject always to such tenure of office laws as the State has enacted or may enact is a proposition generally acceptable to the teaching fraternity.

Every school regulation issued by the administrative department should originate in necessity, should have the general welfare of the children for its great objective, should be helpful to

the teaching corps, and should be so simple, comprehensive, and workable that whoever administers it may be able to do so easily, intelligently, justly, fearlessly.

That these requirements should justify and characterize rating plans is so evident that no argument is necessary to prove the proposition. But the rating problem is not yet solved satisfactorily; probably never will be. The human element enters so fully into the equation that its perfect solution is beyond reasonable hope. That some schemes, approximately satisfactory alike to administrations and to teachers, will eventually be worked out seems quite probable.

Having traveled rather at random about the field of teacher-rating, I will now proceed to describe a plan of teacher-rating now being worked out in Denver and give some of the most important principles which underlie it.

A small but representative committee, consisting of an elementary teacher, a junior high teacher, the supervisor of primary work, an elementary principal, and a high-school principal, was appointed to undertake the task. Each member took up the work in a whole-hearted spirit of democratic service, which is characteristic of the Denver staff. A somewhat general survey of the great variety of plans now on the market was made.

The "point" or "weighted" scheme for rating was not adopted on account of its seeming inherent lack of feasibility. It assumes that each ability or attribute possesses equal value in contributing to the complete efficiency of each teacher. If every individual was exactly like every other individual, the theory might work. Unfortunately for this theory, but fortunately for society, people differ. It also requires a principal to fritter away valuable time on petty computations.

For a working basis, a rating plan devised by a group of principals and supervisors in Columbia University some two years ago was selected, and proper credit is herewith given. A three-point classification was substituted for the "five point" now in general use. This departure does not conform to the theory of the normal curve as closely as the five-point plan. The general theory of the normal curve was not questioned, but its just and fair application to a highly selected group by the average run of mortals was questioned. Teachers in service constitute a group which is the product of at least five distinct and critical selections. Differences still exist, but it is only here and there that a principal has such keen, penetrating, and discriminating

judgment that he can always detect and accurately determine their relative values. Prudence would admonish one who feels self-assured of his ability in this direction not "To lay that flattering unction to his soul" too seriously. That type of mind described by Samuel Butler in the couplet:

"He could distinguish and divide  
A hair 'twixt south and southwest side,"

isn't the type of mind that administers school affairs upon broad and generous lines.

It opens the way to the play of prejudice or favoritism. In making such close discriminations and consequent classification, the personal relation may easily become the unconscious, but nevertheless the deciding, factor.

The three-point classification follows established practices. The mind of man has long accustomed itself to express judgments on the qualities of things, and the abilities of people in one of three ways: "Exceptionally superior; Satisfactory or Good"; and in some term meaning anywhere below "Good." This three-fold classification will serve all practical purposes in teacher rating. Need for finer discriminations exists only in the visions of theorists, or in the judgment of those who are largely "indebted to their imagination for their facts."

The rating sheet adopted for tentative use is a four-page folder, and is printed at the end of this article. The following brief description will make its significance plain. The plan establishes four outstanding, comprehensive factors in teaching efficiency. These are designated Personal, Educational, Skill, and Pupil Growth, and are listed on the left side of the page. Each of these factors is separated into two elements, and each element is considered from four standpoints, somewhat roughly defined as attributes, attitudes, and activities. At the right side of the page, provision is made for recording judgments on each of these four standpoints. These judgments are indicated by placing check marks opposite each item in the appropriate judgment column. At the extreme left side of the page, spaces are provided for the expression of the summarized judgments by writing the words High, Median, or Low as the judgment may be. Regarding the rating page with the recorded judgments as an analytic chart of the teacher's efficiency, the principal will then classify the teacher into one of these three groups: Group I, High Efficiency; Group II, Median Efficiency; Group III, Low Efficiency, and indicate this classification in the designated space at the upper right corner of the sheet.



The following standards and limitations govern the placing of a teacher in either Group I, II, or III:

*Group I*—Exceptionally high efficiency in nearly all of the major attributes, attitudes, and activities, with no marked inefficiency. An occasional instance of low efficiency in the minor characteristics not necessarily a bar. Inability to do one or more specific lines of work included in the range of the teacher's assignment disqualifies. Obviously an inexperienced teacher, or one of limited experience, could not be placed in this group.

*Group II*—Includes all not specifically designated by the standards set for Group I or the limitations placed on Group III.

*Group III*—Conspicuous inefficiency in some of the major attributes, attitudes, and activities; median or low efficiency in most of the others. High efficiency might be noted in two or three characteristics, but such isolated cases are not usually sufficient to raise the teaching ability above the plane of rather inferior service.

The rating of a teacher should be made upon the basis of her efficiency in the specific situation in which her work and her duties lie. Elementary teachers are rated under one of these two classes according to the grades in which they work: Primary, which included kindergarten and grades one and two; Intermediate, which included grades three, four, five, and six. Junior and senior high-school teachers are rated according to the subjects which they teach, using a separate rating sheet for each subject, should they teach more than one subject.

The intrinsic value of every rating plan depends upon human judgment. That judgments of principals will differ is inevitable. The interests of the teachers and the administration are fostered by such differences in judgment. The vital point in the judging proposition is that they who judge shall center their thinking upon the same fundamental teacher-characteristics. To this end, the attributes, attitudes, and activities are listed and, in a somewhat general way, defined. This is not done to encourage uniformity of judgments, but to afford the administration definite, concrete knowledge of what the principal had in mind when he rated the teacher.

Whenever any check mark is made opposite any attribute, attitude, or activity on the rating page, the principal is required to underline the definitions of traits on which he is basing his judgment. In every instance, the absence of any check mark and its corresponding underlining shall be interpreted to mean

that the principal rates the teacher as one of median efficiency in that particular characteristic.

It may be found that there are prominent and forceful characteristics not included in the list which might better be expressed in an independent statement. If this be the case, such statement should be written on page four of the rating sheet, and shall carry such weight in influencing final judgment on the grouping of the teacher as its significance justifies.

The purpose of these requirements is obvious. It not only affords the administration definite information, but it provides the principal with the means of recording his judgments in an exact and definite way, thus protecting him from the charge of personal favoritism or evasion of duty, and it protects the teacher from the practices of any principal (if by chance there are such principals) who wishes to hide behind the screen of general terms.

A principal has quite a number of other duties equally as important as the duty of professionally dissecting teachers; teachers have cares and mental strains inherent in the classroom work that are ample for all practical purposes without the anxieties which naturally are connected with the frequent recurrence of professional analyses officially administered. The frequency of making efficiency reports is, therefore, a problem of considerable interest alike to principals and to teachers. From the standpoint of local school administration, as well as that of the teacher in service, it seems inadvisable and unnecessary to make frequent reports upon the work of those teachers who are under permanent contract.

The first report will be due in May, 1924, and shall stand as the permanent record of that teacher for a period of five succeeding years, subject to certain reservations, such as change from one building to another, or manifest increase or decrease in efficiency. The administration reserves the right to call for a report at any time under the stress of some special demand.

It is often stated that the value of a teacher's instruction can be determined only by the products of that instruction. Very true, a worker's efficiency should be measured in terms of his products. But the chief results of a teacher's efforts are not those in immediate evidence. It was Dr. Winship, I believe, who said that "education is that which the pupil has after he has forgotten what he has learned." At any rate, it is impracticable to rate a teacher wholly upon what appears to be the immediate affects of her teaching. What goes on in the classroom is

the only available measure of teaching effort. And what goes on in the classroom is a composite of all that the teacher is, all that she does, all that she inspires and leads the children to do.

A rating sheet should serve these three purposes:

(a) It should afford the administration all the workable information necessary for it to have relative to the teacher's efficiency and her personal worth.

(b) It should emphasize the principal's responsibility to the administration for just and accurate information on teacher service and his responsibility to the teachers for constructive and helpful assistance in improving that service.

(c) It should provide the teachers with an analytic chart of the fundamentals underlying successful work and yield them full knowledge of the standards by which their work is judged.

A teacher self-rating sheet embodying all that is contained in this sheet, but in a different form, is supplied all teachers.

If this tentative rating plan provides the means of doing these three things effectively and if its execution is not too burdensome to the principal, it may prove worthwhile. If it fails in these particulars, it merits consignment to the wastebasket.

## DENVER PUBLIC SCHOOLS—PRINCIPAL'S REPORT ON TEACHER-EFFICIENCY

Ratings Factors in Teaching Efficiency	School.....Principal.....			
	Teacher.....Classification.....			
	Work.....Efficiency Group.....			
	Date.....			
	ATTRIBUTES, ATTITUDES, ACTIVITIES	High Efficiency	Medium Efficiency	Low Efficiency
	<b>PERSONAL</b> Physical: Vigor..... Appearance..... Voice habits..... Nerve control..... Mental: Disposition..... Dynamic power..... Character traits..... Social force.....	I	II	III
	<b>EDUCATIONAL</b> Academic: General knowledge..... Special knowledge..... Skill in using knowledge..... Command of English..... Professional: Knowledge of theories and practices..... Attitude toward current thought..... Educational initiative..... Growth in power.....			
	<b>SKILL</b> Management: Care of physical equipment, etc..... Routine work..... Government..... Extra-classroom activities..... Teaching: Subject matter..... Motivation..... Technique..... Resourcefulness.....			
	<b>PUPIL-GROWTH</b> Social: Pupil-teacher fellowship..... Self-control..... School citizenship..... Initiative and self-reliance..... Scholastic: Command of subject matter..... Thinking ability..... Expression..... Ideals and aspirations.....			



MEANINGS OF THE ATTRIBUTES, ATTITUDES, AND  
ACTIVITIES LISTED

## 1. PERSONAL

## Physical

Vigor. Health; standing up under the work; power of recovery.

Appearance. Attractiveness; neatness; appropriateness of attire; carriage.

Voice habits. Rate of speech; naturalness of tone; distinctness; carrying power.

Nerve control. Self-possession; calmness; dignity; poise.

## Mental

Disposition. Cheerfulness; optimism; sociability; sense of humor.

Dynamic power. Energy, enthusiasm; leadership; ability "to put things over."

Character traits. Trustworthiness; tact; sympathy; justice; open-mindedness; courage; prudence; industry.

Social force. Team work; spirit of service; community contact; home contact.

## 2. EDUCATIONAL

## Academic

General knowledge. Breadth of information; general culture; sense of relative values; thinking ability; broadly useful.

Special knowledge. Accuracy; fullness; organization; up-to-date.

Skill in using knowledge. Readiness in the use of; fitness; when to give; when to withhold.

Command of English. Clearness; appropriate vocabulary; accuracy; fluency; coherence.

## Professional

Knowledge of theories and practices. Practical knowledge of general and educational psychology; familiarity with standard books on pedagogy; reader of current educational magazines; attendance on educational meetings; support of educational organizations.

Attitude toward current thought. Spirit of research; open to conviction; ability to readjust.

Educational initiative. Fertility of independent thinking; ability to plan and to execute new work.

Growth in power. Profit through experience; decrease in the recurrence of undesirable situations; teaching old subject matter with increasing ease and efficiency; willingness to "let go" questionable practices.

## 3. SKILL

## Management

Care of physical equipment. Attention to light, heat, and ventilation; prudent use of supplies; neatness and orderly arrangement; sense of proportion in room arrangement.

Routine work. Systematic; economic use of time; wise use of pupil service; speed and accuracy in record and report occupation.

Government. Democratic order largely inhering in the work; whole-hearted and orderly occupation; respect for and obedience to authority established and maintained.

Extra-classroom activities. Appreciation of their educational value; promptness in response to calls for outside service; cheerful performance of extra-curricular assignments; a sense of responsibility for the general welfare of the school.

**Teaching**

**Subject matter.** Selection and organization; evaluations; relation to preceding work; relation to materials in other fields; association of content and ideals; provision for a purposeful activity.

**Motivation.** Definite and comprehensible aims; adaptation to pupil's interest; connection with problems of adult living.

**Technique.** Skill in assignment; skill in questioning; skill in directing study; attention to individual differences; class participation and coöperation; familiarity with different methods.

**Resourcefulness.** Variation in presentation; variety of illustrative material adapted to the child; selection and adaptation of appropriate devices.

**4. PUPIL-REACTION****Social**

**Pupil-teacher fellowship.** Comradeship; respect and confidence; mutual consultation.

**Self-control.** Doing conventional acts unsolicited; holding to correct action amid disturbing environment; an active force with associates for right conduct.

**School citizenship.** Realization of individual responsibility for the general welfare; active respect for law and order; sense of social responsibility.

**Initiative and self-reliance.** Acting on own responsibility; responding promptly to the call of duty; meeting emergencies undauntedly; not waiting to be told; contributing voluntarily to class discussion.

**Scholastic**

**Command of subject matter.** Good lesson preparation; accuracy and availability of information; thoroughness; power to use.

**Thinking ability.** Recall and selection of significant facts; evaluation of these facts; coherence of ideas; ability to draw sound conclusions.

**Expression.** Clearness, grammatical correctness, and conciseness in use of English; good vocalization and bodily attitudes; eagerness to participate.

**Ideals and aspiration.** In literature, art, and science; evidence of integrity and fairness; characteristics and abilities that function in worthy citizenship.

## CHAPTER XII

### THE PRINCIPAL AS SUPERVISOR OF INSTRUCTION

MARY E. MORRIS

*Principal, Columbian School, Denver, Colorado*

THIS paper deals with a plan followed with new teachers in my supervisory work as principal. Undoubtedly many principals follow different and better plans. It was the wish of those who requested the paper that concrete examples be given. It is sometimes helpful to know exactly what is done.

When a teacher begins her work she is made familiar with the routine work of the building, such as the passing of pupils, handling and care of books and supplies, yard duty, lunch pupils, report cards, meetings, and care of halls. After going over painstakingly this work and placing in her hands bulletins explaining general practices she is given as a helper some teacher who is thoroughly familiar with the building. She is told to ask for any help or information from the other teacher and, if necessary, of the principal. This does not mean that the school necessarily has iron-bound rules, but conformity to certain practices is essential in a well-organized building. New plans are discussed by the corps. Changes are made at any time. Uniformity of practice in the general routine is conducive to the interests of all concerned. The general plan for supervision of instruction is gone over with the new teacher. An attempt is made to establish immediately the feeling that the supervisor wishes to help, that the inspectional aspect of the work is only to find out how to work with the teacher.

The teacher is told that a good plan in beginning work with a group of children is to establish a feeling of respect for, and confidence in, herself. The first day's work is very important and should be carefully prepared. Any teacher may well use more than the allotted time, and place particular emphasis upon the subject or phase of work which she knows she can do especially well. She can then approach her more difficult problems with the most careful preparation and avoid tiring the pupils and creating a distaste for the work.

The supervisor's first visits are brief and concerned with the general order of the room. After the first visits a short typed report is handed to the teacher and discussed with her. A copy of the report is thus in the hands of both teacher and supervisor. Notes are made during the interview. Two reports are here quoted:

## REPORT I—MISS A

Appearance of boards good.

Chalk and erasures well cared for.

Seating arrangement should be studied. Tall children should be back of short ones.

Attention should be given to defective sight and hearing.

Light and ventilation had been considered.

Children and teacher's desks very neat.

You have made the best of a rather difficult situation. Keeping this neat, orderly room will help you with the work.

Shall I help you reseat?

## INTERVIEW I

Principal and teacher rearrange seating.

## RESULT I

The teacher has inaugurated unusual devices for caring for the order and appearance of room. She has been very helpful to other teachers. She has twice been changed and placed in an "impossible" room. The room has become possible.

Her teaching technique has improved. She almost over-studies the seating of pupils.

## REPORT II—MISS B

It will be of help to you to have your desk and pupils' desks orderly.

The top of a desk should be used only for work upon which you are immediately engaged; the drawers of the desk should be used for all other materials. You might help the children in planning a good way for placing their books and pencils in desks. There is great economy in orderliness.

Miss A has an excellent plan for caring for boards, chalk, and erasures. Please talk with her and unless you have a better plan use hers.

## INTERVIEW II

Many other disorders were discussed—waste paper, poorly regulated blinds, poorly exhibited work.

Teacher offered excuses.



## RESULT II

Improvement was spasmodic.

Occasionally there seemed to be a surface cleaning up.

Teacher was made conscious of the defect.

She usually made an attempt to straighten up or have something straightened up when the supervisor appeared. I never saw her handle a recitation without making some attempt to prove that she gave attention to this thing. She never appreciated the value of orderliness. It was pointed out to her at the end of the semester that she had failed in this respect.

In the end I told Miss B I thought it was physical laziness, and she admitted the truth. She hated to do any housekeeping.

It is usually true, though there are exceptions, that this slovenliness will be seen in the instruction. It is also true that extreme formality in instruction and a petty over-emphasized attention to orderliness are sometimes found with such a teacher as Miss A; this, however, is not the rule.

Not later than the third week of school the supervisor should remain with a new teacher during an entire class period. Two plans of helpful procedure follow: An oral discussion of visit, or a written report and discussion. It has been almost exclusively my practice with new teachers to make a written typed report, handing a carbon copy to the teacher. When this report is being discussed, notes are made by both principal and teacher.

This supervision for the purpose of improving instruction is probably the cornerstone of the supervisor's work. Regardless of all other considerations the supervisor should be a trained expert here. He should do his work as a co-worker and helper.

In supervision of instruction certain arbitrary rules and regulations cannot be followed if good results are to be obtained. It is the lack of tangibility that makes the work extremely difficult, unfailingly interesting, ever elusive, and offering such possibilities that no amount of reading and study can make a progressive supervisor feel that he has more than begun to fathom.

The reports which follow deal with supervision of instruction. Reports III, IV, V, VI, were all made to Miss C, teacher of an intermediate grade of forty-two pupils.

## REPORT III—MISS C

The twenty-two pupils, who were supposed to be studying, were restless and uninterested. Seventeen children tried to invent new uses for rules and pencils.

What had you given them to do?

Twenty pupils in the other group read aloud.

They corrected each other thus: "He said, 'an' for 'and.'" "He said 'represent' wrong." "She leaned on her desk."

Teacher offered the same type of criticism.

Books were closed and the teacher asked a few factual questions, as, "Where did the boy go?" "How old was he?" etc.

This assignment was made for next period, "Read lesson nine. Use your dictionaries if you cannot pronounce the words. Read it all as many times as you can." If your pupils advanced in reading it was not due to your presentation of the lesson, but because of an accidental value that might have been obtained any place. The entire period seemed to me to be consumed in trying to pass peaceably thirty minutes of the day. Oral reading of this type of usually valueless.

*Suggestions*—Know the lesson thoroughly yourself. Anticipate difficult words, study these with the class. Hint at the interesting parts.

The assignment might be made in this way: Teacher prepare questions that will cause pupils to think. Why questions? Put these on board. Say to pupils:

1. Find parts that prove your answer or opinion is right and read these parts to the class.

2. Do not worry over difficult words; we will work them out together.

3. Find what you like best or is most interesting and read it to the class. Be sure that you know exactly what you want to read.

## INTERVIEW III

She was interested. We went over the report point by point. She was given many suggestions. She realized that her lesson was a failure, but felt she had been helped and could do better.

## REPORT IV—MISS C

Two days later visited the same class.

I am greatly encouraged. Your questions were carefully prepared. Many points are better. Order greatly improved. How

did you divide your class? They seemed to me to be very poorly divided. May I help you?

#### INTERVIEW IV

After talking over improvements made, the teacher said, "I knew nothing about the class. I just divided them into two groups. I should like help in dividing them."

#### RESULT IV

Two standardized reading tests were given, Thorndike-McCall's and Monroe's.

Study was made of these with the teacher. The supervisor taught two lessons to help in forming judgment, also to help teacher. It was quite evident that the teacher forgot about the division of the class and became absorbed in how the teaching was being done.

The division was made and the teacher was cautioned to watch for mistakes in judgment and feel free to change pupils from one group to the other.

#### REPORT V—MISS C

Visit to same class a week later.

Your results are good with group one, poor with group two. What is your trouble?

#### INTERVIEW V

Teacher: "When all those poor ones are in one class the recitation is awful."

Supervisor: "I noticed that 'those poor ones' were in no way a part of the recitation when your groups were mixed. Your assignment to the poor group and also the lesson they were trying to study seemed harder to me than those for group one."

*Suggested remedy:* Select from the reading material you have the easiest you can find for use with the slow group. Make easy problems for them. Borrow and use a set of books of their choosing, if possible, from a lower grade. These poor readers frequently like to go back to old lessons. Do not feel that reading lessons must be found in consecutive order in a book. Try to be sure in each lesson of these things:

1. The children all enjoy reading.
2. They have become interested in problems presented on the written page.

3. They have gained power to express themselves clearly.
4. They have gained a larger vocabulary and better reading habits.

### RESULT WITH COMMENT

This teacher was given help in every subject. No other subject received as much time as reading; she did not need as much help in other work, and she applied what was given in these and other reports to her other work.

When I first observed her work she talked very loud. She was sent to visit two teachers who had especially good voices, one of them having learned to control hers. This teacher told the new teacher how she did it.

She worked very hard upon the presentation of lessons. She was formal in discipline and was not very sympathetic. I had said very little about this. The work done by her the second term was less intensive; fewer written reports were given. She came to me with problems. I usually visited her classes to help her with her known difficulty.

When she began the second semester I gave her these suggestions:

### REPORT VI—MISS C

I feel that you have grown. Your voice is good.

Your pupils have gained satisfactory knowledge of the subject matter.

You are to teach an entirely new group of children. Let us center our attention this term upon creating a "social atmosphere."

Your children should be very happy. Try to teach so as to make them feel, "We are learning together" and not "I am teaching you this."

Get as close to the children and their interests as you can. Know the home conditions.

### INTERVIEW VI

We talked over ways and means of obtaining the "social atmosphere." These particular points were made:

Get the child's point of view.

Cultivate a sense of humor.



## RESULT AND COMMENT

Miss C was sent to visit teachers who were especially skillful in establishing a free, happy spirit. She has completed her probationary service and is ranked very high as a teacher.

In contrast to the results obtained with Miss C were these I obtained with Miss D. I am giving one report which was handed to Miss D. Many reports such as those to Miss C had been given her, and interviews followed. I tried to give her every possible help. I felt that she was lazy. She frequently met my suggestions with "I have tried that plan, and it does not work." She almost invariably wished to spend time making explanations while the supervisor was observing her work. She would take class time to say, "Now we are doing this" or "The reason we are doing this," etc.

I have been unable to correct this habit with some teachers. It is a waste of time. The work does not need to be justified. All explanations should come at the time of the interview.

## REPORT VII—MISS D

I was unable to talk with you Friday as I spent all my time for consultation with Miss C.

I wish to emphasize certain things to which I have called your attention at previous visits. Your voice is very good; your attitude toward the children is excellent in the confidential relation you seem to establish, but lacks firmness. I hope you will not find it necessary to change desirable things in order to make appreciable improvement in certain ways where your work shows decided failure.

1. Your work lacks definiteness. A specific illustration of this in Friday's work: Your 3B class was supposed to read books, but nothing was said to them about what they should do; some read, some played.

The second grade was given papers for spelling just before you began a short study of the words on the board; some started to put the heading on the paper, while you were working in the words. They are told not to do this. The words were then dictated, with considerable interruption to teach penmanship. I am quite sure this interruption should not occur during Friday's lesson, as this is your final lesson, the lesson upon which you base your spelling marks.

The children were given no opportunity to head papers or to write their names on them, consequently there was a general

disturbance when collection began; some papers went in without names, some were poorly written. Your plan was indefinite. This may seem a small matter, but it illustrates the same weakness I have seen at every visit.

2. Your work is not well prepared. It is my impression that this lack of definiteness is due to lack of preparation for the work. You should know each day just what you expect to do at each period. This will not necessitate a fast-bound procedure, but will make you self-confident, assured, and accurate.

Before every study period be sure that every child knows definitely something he may do.

3. The discipline is poor. Not an unhappy, resentful attitude, which sometimes exists where many rules are enforced and a military form of discipline is maintained, but there is a tardy response, inattentiveness, dilly-dally ways, and general carelessness. It is unusual for 50 per cent of your class to listen to what you say. Those who try to pay attention have very little idea of what is expected, because you are very indefinite. Your discipline should come through your teaching, and I am sure when you master the teaching you will have no difficulty with discipline.

I wish to make this suggestion for a correction of the fault in spelling lesson:

Study words before papers are passed. Have a plan for this study. Very little study should be necessary on Friday, as the words given at that time have had previous careful study.

Children look over words carefully and ask for help where it is needed. Few words would have been asked for.

After the study, pass papers. The school pencils should be ready and passed at this time. Everyone head papers at the same time. All write together without interruption.

Please do not teach handwriting while dictating a spelling lesson.

#### INTERVIEW VII

*Explanations made by teacher*—She thought she must use military discipline.

She defended the teaching of penmanship on the grounds that she had seen the plan used by an excellent teacher. We went into every detail of a plan for teaching a lesson.

## RESULT AND COMMENT

I taught, as I had previously done some lessons. The teacher was sent to visit. I was never able to see satisfactory results. She was changed to another school. She is doing better work, but has not completed her probationary service.

These reports show the particular phase of the supervision of instruction upon which I was asked to report.

Teachers' meetings offer excellent opportunities for supervision. At our meetings magazine articles and books are discussed, for example, McMurry's, Thorndike's and Kilpatrick's principles underlying the thinking process have been studied.

Demonstration lessons have been given, studied, and criticized. The supervision done in teachers' meeting is an indirect supervision. I have found that the strongest teachers benefit most by it. The new teacher and the weak teacher do not always understand general discussion, and are unable to apply what is given. They need specific instances and illustrations. They need to see what is and is not functioning in their own work.

In order to have variety in the supervisor's program a different procedure is followed from term to term. One term the work is done by subjects. Every reading class is visited. Discussion in teachers' meeting will be based upon good and poor methods, and results. The same program is followed with each subject. A term's work may profitably be done on the study of one subject.

Another term the supervisor visits each teacher at each period of the day. Any part of the work where help is needed is then taken up.

Another term no specific plan is followed, but teachers are visited until some work with each has been seen.

It has been my purpose to bring to every teachers' meeting briefly or extensively some particularly good work seen. I do not always remember where the work was seen. I do or do not mention the names of the teachers.

No teachers' meeting has ever had one minute given to the discussion of matters that may be explained by announcements and bulletins, or to individual problems pertaining to pupils or teachers.

Skillful supervision of instruction is not more important for a principal than skillful administration and organization. Many

duties of the latter can be delegated. The organization may be planned when school is not in session.

Certainly no principal has the remotest idea that his work is done from 9 A.M. until 4 P.M., five days a week, ten months in the year. There is an abundance of clerical work to occupy all of this time. More than 50 per cent of the time that children are actually in school must be given to definitely planned supervision of instruction, or this part of the work is neglected. Certainly we shall need to be about our task unceasingly if we justify our position as experts in this work.



## CHAPTER XIII

### THE PRINCIPAL AND THE PROFESSIONAL GROWTH OF HIS CORPS

FRANCES POTTS

*Principal of Avenue B School, Council Bluffs, Iowa*

**T**HAT elementary school work is so important as to demand professional workers few will question. But do elementary teachers constitute a profession, if judged by the standards of the recognized professions?

The work of a profession must rest upon fundamental, scientific principles of such a character that years of study are necessary to their mastery; the mastery of these principles must be proved by skill in their application; the work must be done "for the joy of the working" and from a desire to serve society, while society provides financial returns sufficient to make such service possible; and among those engaged in the work there must be a strong sense of loyalty to each other.

What evidences then of professionalism shall we look for in the elementary school teacher? She must have met high standards of preparation; she must be meeting high standards of work; she must be growing professionally; she must be civic minded; she must observe the ethics of her profession in her relations with other teachers, with her superiors, with the board of education, and with the public; and she must have a love for her work, and a pride in her profession.

There should be in every teachers' college a required course on the teacher's relation to her profession. It is not enough that the teacher be prepared for her classroom work only. She must know that she is about to enter a profession, that she is to assume ethical obligations, and that she must be prepared to add something to the profession by her entrance to it.

The writer would like to see the Department of Elementary School Principals of the National Education Association make an investigation as to how much of such work is being done in our colleges of education and make recommendations that this need be met by the colleges. Surely no one realizes the need more keenly than does the elementary school principal.

Even were such a course given by our colleges, there would be much need for the principal to interest himself in the professional development of his teachers. His every contact with his

teachers will affect their professionalism. Any act of good supervision will add to the teacher's professional stature, but we will consider the principal's work to this end under four heads: *First*, the principal must teach professionalism by precept and by practice; *second*, he must create a school situation that makes growth easy; *third*, he must guide his teachers into such activities as will lead to their growth; *fourth*, he must *be* such as to inspire the professional spirit in his teachers.

Under the first head, the principal must take his stand for professional mindedness in no uncertain, half-hearted way. At his first meeting with his teachers, it is well to outline what he expects of them professionally. This can be done in an impersonal way, and may prevent friction later. Since our colleges are not giving adequate training in the demands of the profession, the teachers of the school might make a study of how to professionalize teaching. It would be profitable to study how other vocations have become professions.

Education has, perhaps, a greater body of scientifically derived and established facts and truths than has medicine. Then why should medicine, with all its uncertainty, be recognized as a profession, while teaching is not? Because medicine is a closed activity. Only those who understand its principles are admitted. It has been advanced by those engaged in it. Those engaged in teaching must do the same.

In consideration of our second head, if the principal would have growing teachers, he must establish a democratic régime. Democracy furnishes the best soil for growth. One hesitates to use the term democracy, as applied to school organization, for the term is used often where the spirit is lacking. Democracy should not mean the use of "ballots instead of brains," neither should the term be applied to a condition in which the principal arbitrarily imposes his policies on his school, but graciously permits his teachers to have a voice in matters of no consequence, that the principal may boast of his democracy.

A democracy is made safe through wise leadership and thorough education. The principal must be the leader of his teachers, and he must educate them. Then, he must have their help in directing the policies of the school. He needs his teachers' help; the school needs their viewpoint; and the teachers need the growth that will come through the exercise of this power.

In Avenue B School, the teachers are divided into four committees, each teacher serving on each committee for one fourth

of the year. The committees are social, financial, professional, and advisory. The Social Committee promotes sociability and social activities among teachers, pupils, and patrons; the Financial Committee plans for raising funds and decides how the funds shall be used; the Professional Committee helps to plan for and direct professional study and activities; the Advisory Committee helps to form school policies.

The Advisory Committee was created because the principal felt, from her own experience as a teacher, that suggestions are not always welcomed by superiors, and that teachers feel, even when a superior invites criticisms and suggestions, that he may be sincere in his offer, and yet will resent the response when it comes. The principal wished the teachers to feel free to think at all times on all subjects, not merely on rare occasions when allowed to do so.

Any suggestion is taken direct by the teacher to the Advisory Committee. The committee considers it, and if it is thought best, a recommendation is made to the principal. The principal need not know with whom the idea originated. So helpful have the suggestions been that only one of them has not been used, and that because it conflicted with the superintendent's orders. The only criticism of this committee would be that they have not made suggestions enough. The teachers in these matters are governed by the highest motives. "What is for the good of the child?" is the first question. There may have been selfish motives in some requests that have come to the committee, but if so, none of these have come to the principal. The good of the school, as a whole, seems always to have been considered.

In a democratic organization, the principal can best test his own strength. The strong principal will grow stronger, and the weak one will see his weakness. If the teachers are not exercising their power wisely, the principal is at fault. Either his policies are not right, or, if right, he has failed to put them across to his teachers.

Since skill in the application of educational principles is a test of the teachers' professionalism, anything that the principal does to improve instruction will be a means toward professionalizing his teachers. The matter of supervision of instruction is too big a topic for this discussion, but the writer wishes to show what she believes to be essential to the supervision which leads to greatest growth.

The principal must have his teachers with him, both in understanding and in sympathy. It is not enough that teachers

sweetly conform in matters they do not understand nor believe. Better to move slowly than for the principal to rush ahead of his teachers, but they need not move slowly if the principal with his teachers will set up a definite goal and a definite plan of march.

Walter Lippman says the basic problem in democracy is to get to all the people all the facts. There lies the principal's problem—to get over to his teachers the real facts. He must seize the first opportunity to begin this. At his first meeting with his teachers, he should put in their hands typed copies of the general plan for the year.

Our Avenue B School plans, for 1923-1924, contained these points:

*First*, we have a different slogan each year. This year our slogan was: "Individualize! Socialize! Vitalize!" Individualize—Teach to the child *who* needs it *what* he needs, *when* he needs it. Socialize—Let us state our problems, not in terms of tradition, but in terms of service. Vitalize—Experience is the key word.

*Second*, objectives were set up in each subject, in health work, and in pupil citizenship.

*Third*, subjects were given upon which special study was to be made, to form the basis for teachers' meetings. Each year we work on the two or three subjects in which we feel weakest. For 1923-1924 our studies were: (1) Oral English; (2) drill lessons, habit formation; (3) appreciation lessons.

*Fourth*, the principal's schedule was given as follows:

TIME:	WORK:
8:00- 8:30, and 4:30-5:00.....	Conferences.
8:30- 9:30, and 1:00-2:00.....	Administration
9:30-12:00, and 2:00-3:30.....	Classroom visitation, tests, or demonstration
3:30- 4:30.....	Plans, studies, etc.

The above schedule is not always strictly observed. Sometimes classroom visitation begins at nine o'clock or at one. Group conferences usually require longer than the time assigned, and administrative work sometimes crowds out the other work, as the principal has no clerical help.

The principal's weekly and daily plans, where they apply to classroom work, are open to the teachers. It pays to take the teachers into one's confidence. They are worthy of it. It helps them to know when the principal will visit and what he wishes to see. Little good can come from the principal's "snooping," or



"spying." If he cannot create an atmosphere which makes that unnecessary, he will not accomplish much anyway. If the principal's purpose in visiting is to help the teacher improve her work that the child may be benefited, there is no reason why there should not be a complete understanding in the matter.

The daily schedule also helps to keep the principal on the job. It is a spur to know that one's teachers know where their principal should be and what he should be doing.

The teachers' meetings at Avenue B School are for the purpose of studying our immediate classroom problems. It is when the teacher is confronted with her real teaching situation, when she faces a genuine teaching problem, that the principal can best lead her to see her need for mastering the educational principles upon which the profession rests. When teachers are striving to reach higher standards of classroom work, they may be led to see the need of high standards of preparation. They realize that they must know the *why* of education, as well as the *what* and *how*; that four years of study of educational problems are not sufficient, but that there must be constant study.

We have few meetings for the entire corps. We have group meetings so that the work may apply directly to each teacher's problems. Usually, the lower primary teachers form one group, with the kindergartners sometimes included; the upper primary form a second group, while the intermediate form a third. The principal meets with all groups as the leader.

Each group holds a series of meetings on each subject. In the selection and organization of material, the principal is helped by the Professional Committee. Several weeks before the first meeting, the topics for study are outlined, and references are given. A typed copy of the plan is given to each teacher. Some topics are for general discussion, and others are assigned to different teachers. If a topic is given to the teacher who needs it most, after reading and reporting on it, she often becomes its strongest advocate. We hold as many meetings as are necessary for this initial study of the problem.

After a few weeks of trial of our new ideas, we begin our second series of meetings on the same subject. For the basis of these meetings, teachers hand to the Professional Committee lists of questions and problems that have presented themselves as they were trying out the new plan. These are classified and organized; additional and quite specific references are given, and typed copies are given to the teachers. The meetings which fol-

low are usually enthusiastic ones. They are voluntarily prolonged after closing time. Teachers like meetings when they feel they are being helped.

As a final stage in our study, demonstration lessons are given. These are not "show off" performances, nor are they the display of a finished product. The teacher, with her class, is shown in the process of solving a problem. We strive for the spirit among the teachers that would be found in a clinic or in a laboratory. We want the attention centered, not upon the teacher, but upon the children. The teachers must know beforehand the condition of the class and the change that is desired to be produced in the class. The reaction we want from the observing teachers is as to what changes should next be made in this group of children and as to how one should proceed to produce that change.

That our teachers are growing as a result of these meetings is evidenced by their work and by the fact that after the study is completed, they are eager for references, suggestions, and conferences on the subject.

After the goal is set, and the pathway to it laid out, we need constantly to see if we are on the way. The principal needs a well-planned, thorough testing program. The teachers should know that all their work will be tested, and when. In Avenue B School the principal tests every child at least once in every subject every six weeks. The tests are short informal ones, made out by the principal. They do not take the place of standardized tests, which are also used, but they are a means to help us on to these standards.

The teachers welcome these tests. When they are getting results, they like to feel that their principal knows it. They like to feel that the principal knows the condition of their classes. They know, too, that help will come from the principal as a result of these tests that mere classroom visitation could never bring. While the result of the tests may at first sometimes discourage the teacher, her discouragement fades when she sees her difficulties removed. Very frequently teachers ask that their classes be given an extra test, as they feel they will show to better advantage than in the preceding one. There are more requests for tests than time will permit the principal to grant.

The professional reading of our teachers centers closely around our specific classroom needs. Eight educational magazines are taken at the building, five of which are elementary school magazines. The teachers are asked for brief written reactions to the educational articles that especially appeal to them. They are

also asked to write briefly their reaction to any experiment which they have made in their work as a result of their reading. The principal writes her reactions to current educational articles in a notebook, which is kept on the teachers' reading table.

If teachers are to grow in instruction, they must be allowed to exercise initiative. The "machine-made teacher" cannot turn her pupils into true Americans. The principal must recognize and respect the ability of teachers. The teacher needs a large measure of freedom in order to be happy in her work, and happiness is a big factor in successful work.

It is a pitiful sight to see a principal so weak that he is jealous of his teachers; to see one who lives for the purpose of squelching conceit and who delights in evidences of the "inferiority complex" in his teachers; to see one that, if any teacher dares step out from the sober march of mediocrity, promptly and permanently puts her back into place. Such a principal has not learned that the best test of the principal's worth is his ability to bring out latent powers in his teachers.

The principal must interest his teachers in professional organizations. Membership in these organizations is both an evidence of professional spirit, and a condition of professional growth. The principal should be content with nothing less than the one hundred per cent membership of his teachers in local, State, and National organizations. He must be able to make his teachers see the importance of such membership, and he himself must be active in these organizations that his influence may help them to function professionally.

These organizations provide contact with the whole educational world. Through organization, the spirit of the professional teacher is capitalized; unity of thought and concerted action is produced; young teachers are assimilated; and the older but narrow-visioned teacher is given a new outlook.

The sense of belonging, thus fostered, gives the teacher a larger group consciousness and teaches her the power in coöperation. Through united effort the teachers may prove their civic-mindedness by community service equal to that of any other service club, thus gaining social prestige.

Through union, activities may be carried on toward social, personal, financial, and professional betterment; legislation may be effected, and teacher welfare made secure.

"Before there can be fine teaching there must be fine living. Every teacher should be enabled to live a simple, well-rounded contented life—rich in the abiding satisfactions, secure economically, broad in its community contacts, well-poised, and consecrated."



Where teachers have thus raised themselves, they are losing the apologetic attitude as regards their calling, and the odium is being lifted from the name of teacher. Too often when people wish to flatter us, they say, "You don't look a bit like a teacher." We must hasten the day when to look like a teacher will be high praise. Membership in professional organizations helps to develop loyalty to the profession. A code of ethics for our profession must be clearly defined and rigorously enforced. The one who cheapens herself or her vocation must be eliminated.

There is too much school gossip. There are vocations which do not aspire to the name of profession that might teach lessons in this respect. A nurse learns early in her training that she must not talk; the stenographer is silent as regards her employer's business, but we of the schools talk at all times and in all places. The fact that many administrations are not democratic will account for much of it, but part of it is due to lack of training. It is the earnest, conscientious ones who do most harm. In their desire to serve, they would shape school policies. But they must learn that this is not safe for the individual teacher, alone. She is too apt to lose her head, in more ways than one. But teachers, through organization, can create a more democratic educational field in which to work, one in which they can have a part in shaping policies in such a way as to feel they are truly serving humanity. Then, granted such a condition for work, teachers must show a fine courtesy of speech as regards one another and one another's work, such as is shown in the medical profession.

Finally, much of the professional spirit of the teacher is a reaction to the spirit she feels in her principal. Much depends upon the principal's ability to energize and inspire his teachers. Cubberley says: "As is the principal, so are the teachers," is more nearly true than the common "As is the teacher, so is the school." The principal who complains of disloyalty, lack of honor, and failure to coöperate on the part of his teachers, had best look to himself first. Faith, loyalty, coöperation, trustworthiness—will be found in teachers by superiors who have these qualities in strong measure. "With what measure ye mete, it shall be meted unto you."

If the principal thinks less of himself and more of those under him, if he brings to his work intelligence, sincerity, sense of justice, sympathy, and that whole-hearted earnestness of purpose that has no substitute, he will have a high morale in his teachers. The development of *esprit de corps* is easier in teach-



ing than in most vocations. There is an appeal in the upturned face of the little child; an inspiration in the shoulder-to-shoulder march with other teachers; a response to the leader who knows how to marshal spiritual forces, that turns the thoughtless young girl into the conscientious, self-sacrificing teacher, with a morale unequalled save by that of the soldier fighting under the spell of a great idea. But more than morale is needed for an army. Science is needed, too. So, in our profession, we must have both spirit and science. There is no danger that the science will be over emphasized, but "the spirit quickeneth."

We who are principals must take a decided stand that entrance into the profession of principal, and promotions therein, be based on professional qualifications, that principals be able to treat their work scientifically, while inspiring the ardor of the artist in their teachers; that the principal adds special training, rich experience, and large vision to high personal qualities. When principals are selected and promoted on professional grounds, rather than for personal or political reasons, we will be on the way toward greater opportunities for service, as well as toward greater remuneration.

If the professional growth of his teachers is slow, the principal must look for the cause in himself. The teacher's failure is the principal's failure. It spurs one on to think that there is never a teacher so weak but that the right principal might make her strong.

The principal's problem, then, is the same essentially as that of any human being who works for human beings, through human beings. Throughout my paper I have tried to show that the solution of this problem in the school, is, as in other social institutions, "The long pull, and the strong pull, and the pull all together," or with Kipling, "It's the everlastin' team work of every livin' soul."

We who are elementary school principals have an opportunity for service limited only by our vision. If we love our work, if service through it is our joy, if we are finding the life abundant in our profession, then with what zeal, with what courage, and with what faith, we can lead our teachers along these high paths of service which will lead to the greater America which is to be.

May our vision and our strength be such, that our teachers may say of us as Dante did of Latini, "For in my mind is fixed, and my heart knows, the dear and kindly picture of you, when from hour to hour, you taught me how man makes himself eternal."

## CHAPTER XIV

### THE PRINCIPAL'S BUILDING MEETINGS

CHARLES F. MCKEEHAN

*Principal, Seward School, Seattle, Washington*

IT HAS BEEN quite generally conceded that the principal's chief concern should be the improvement of teaching efficiency in his building. This constant improvement is dependent upon the amount of professional alertness that permeates a corps of teachers, and it ought to be the principal's highest ambition to keep his group at the peak of professional interest.

There are many devices that may be used to improve the quality of instruction and character of the teaching body. It will perhaps be sufficient to merely mention them in this connection. They are: (a) The personal conference; (b) demonstration teaching; (c) provision for visiting day; (d) suggested readings; (e) teachers' meetings. It is the purpose of this article to discuss the last of these, the teachers' meeting.

The principal's building meeting is in too many instances unpopular with the teachers, and it is in disfavor because it is not helpful to the teachers. This is an indictment which the principal must accept, for it is quite universally agreed that teachers in general are anxious to increase their efficiency. They invite suggestion and help.

There are several types of teachers' meetings that are not particularly helpful to teachers and not very productive of the best spirit of professionalism in a corps. Some of these are never necessary, and others need be held but infrequently.

There is the meeting which has been called The Bulletin Board Type.<sup>1</sup> In such a meeting the principal makes routine announcements or explanations which he might have more appropriately framed into a bulletin to teachers. If these announcements carry many details, the teacher needs the bulletin for reference. Such meetings become very tedious if they are frequently resorted to by the principal. They certainly do not have an inspirational effect to say the least. Such matters must be considered occasionally at the principal's building meeting, but caution should be exercised in preventing a predominance of this type of meeting over the more helpful inspirational meeting.

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<sup>1</sup> Cubberley, Elwood P., *The Principal and His School*, Boston. Houghton, Mifflin Co., 1923. 571 p.

The grievance meeting in which certain teachers monopolize the time of the entire group with their complaints or grievances about this or that phase of school work should be minimized by the principal. A spirit of courage in facing facts with a constructive optimism is what is wanted. As a general rule it is preferable to air grievances in a personal conference with the principal.

There is the type of meeting where the principal grumbles with more or less diplomacy about certain aspects of the work of the school, or of some few teachers, by speaking in general terms, thinking the teachers who need to heed will do so. The thing that is lacking in this instance is courage upon the part of the principal to hold conferences with the persons that need guidance.

The principal should guard against being the chief performer at every meeting. Some principals feel that they must prepare a lecture for each meeting upon some professional topic. In many of these instances the topics are not directly related to the work of the school. The teachers must have a place in the meetings if they are to receive the most help.

It is necessary from time to time to hold a conference with the teachers upon purely routine matters, in which building policies are discussed and established. The only harm in such meetings is in their frequency and duration. When a principal makes all his meetings of this character he is failing to use the building meeting for its greatest good.

If building meetings are to be interesting and profitable to teachers, if they are to develop and strengthen a spirit of unity, loyalty, and ambition among teachers, then they should be devoted very largely to professional matters that are vitally connected with the work of the school. Further than this, these meetings must be planned and outlined by a live, professionally alert principal, businesslike in his handling of the meeting and keen in his application of the discussion to the problems at hand in the school.

A great amount of work and study should be devoted to the planning of building meetings. Too often the principal follows a drifting policy or a waiting program depending upon circumstance to arise that will furnish occasion for a convening of the teachers. This is particularly the practice when routine meetings predominate, but when good live professional meetings are held the far-seeing principal plans his program long in advance. He sees the needs of the school for the year, the matters that

should receive special emphasis during a long period. He accordingly lays out a series of meetings upon perhaps one or two phases of school work which will furnish material for all the building meetings for a semester or a year. He will, perhaps, compile a careful bibliography upon each phase of the subject. He will assign wisely some of these subjects for report and discussion to the members of his corps, to committees if he has a large corps, or to single leaders if his group is small. Whenever he is responsible for the presentation of any topic he will spend a great amount of time in preparation, in organizing it, in rehearsing it to himself in order that he may put it across in the most effective way before his teachers. Every principal ought to have some secluded spot in his building where he can go to rehearse talks to himself without interruption by anyone. This may seem like an unusual amount of effort, but the principal must realize that it is in these building meetings, in part, that his corps is forming their opinion of his ability as a leader and an organizer. Their respect for his leadership is of inestimable value in the operation of his school.

In asking the teachers to accept some responsibility in the conduct of these meetings caution should be used about making too heavy demands upon their time and energy, for they are exceedingly busy people. It is not expecting too much, however, to count upon each teacher for one report or fairly exhaustive study for the year if sufficient notification has been given her long in advance. If the principal works his program out for a semester or year in advance, then she will have opportunity to make a real contribution and without too great a drain upon her energies.

In asking teachers to have a part in these programs, the principal is applying the educational philosophy of pupil participation in classroom recitations, or of the socialized recitation. This philosophy is equally pertinent in the handling of the teachers' meeting. The principal should be there to guide the discussion and to assist in making all the practical applications possible of the philosophy advanced.

As already indicated it is advisable in some instances to select a topic or phase of school work that will furnish material for several meetings, possibly a semester or a year. In the study of the subject of reading for instance, the following phases of that subject might be reported upon, each phase supplying ample material for one meeting: (a) The Psychology and Pedagogy of Reading; (b) Objectives, Methods, and Devices used in Primary Grade Reading; (c) Objectives and Methods in Grammar Grade



Reading; (d) Remedial Work; (e) Phonics and Word Analysis; (f) The Measurement of Ability in Reading. A good bibliography should be worked out for each of these topics. Some of these might be subdivided and furnish material for discussion for more than one meeting. In considering objectives, methods and devices in primary grade reading, one conference might for instance be devoted to the Horne Shields Flash Cards. Their use might be demonstrated before the teachers, followed by discussion. These six divisions of the subject of reading might, by making some subdivisions as indicated, be made the subject for consideration at building meetings for one semester. Wherever possible, demonstrations by teachers should be utilized. Teachers frequently are hesitant about such procedure, but where there is a friendly group feeling in a corps this attitude can be avoided. The principal can insure the proper staging and effects if he will. Meetings of such a character as have been referred to, make out of every building corps a sort of study group, where new ideas are acquired and tried out and where ambition to achieve is fostered.

The time and frequency of holding building meetings varies the country over. They are held from once a week to once a month, and in some instances subject to call. The consensus of opinion seems to favor holding meetings twice a month. If large topics are to be considered and exhaustively treated it will require at least two meetings a month. Once a week makes too many demands upon the principal and his teachers in view of the fact that they are busy people. There ought to be a regular time for building meetings. Holding them subject to call is inadvisable. Such a policy indicates a principal without a program. Meetings are conducted at different times of the day by different principals, in the morning before school, at noon, and after school. If the meeting is to be purely a routine affair, then it could, perhaps, be conducted before school or at the noon hour, for only a few minutes are required for such a meeting. The most appropriate time, however, for holding meetings of a professional nature is immediately after school and preferably the early part of the week before teachers are tired.

The after-school meeting should not be long and drawn out. It should never be much longer than an hour. The principal should watch the time religiously and close each meeting promptly at about the same hour. If teachers are aware of this they can have other engagements after school and know exactly whether or not they can keep them.

The principal needs to watch the effect his building meetings have upon the emotions of his teachers. Did you ever have your teachers say to you, "Oh, I went home from the meeting last night with the most discouraged and depressed feeling?" Did you ever have that feeling yourself after attendance at one of your superintendent's meetings?

A principal is apt to get such an emotional reaction when he has read or made some fine statement of high objectives before his teachers, or when he has expressed some fine bit of sentiment about child training which causes the teacher to feel that she is falling far short of the mark in her work. Principals certainly do not wish their meetings to leave the teacher with a depressed feeling. She is often doing, in one way or another, the very thing that may be suggested by the fine sentiment. She is too close to her task to see this. The principal should point this out in his application and make her feel that these objectives are being realized in many ways and leave her with a feeling of courage to accomplish still finer effects.

The duties and responsibilities of the elementary school principal are numerous, but there is no one perhaps that demands any more of the principal in the way of preparation, character, knowledge of the philosophy of education, understanding of human nature, than that of conducting helpful and inspirational teachers' meetings.

Such meetings are a useful agency in stimulating teachers to greater zeal, in keeping them in touch with the advance in education and in creating respect for the leadership of the principal and for his ability as an organizer.

## CHAPTER XV

### THE PRINCIPAL AND A DEMOCRATIC REGIME

SARA L. RHODES

*Principal, Public School No. 28, Brooklyn, New York*

TWO QUITE DIVERSE types of administration claim individually to be the exponents of democracy in a school organization, but these types differ from one another almost as far as the East is from the West. Generally speaking, one type places its faith and its emphasis upon forms and regulations, while the other is a matter of spiritual growth in the art of living and the art of teaching others to live.

My experience leads me to believe that the first type contributes very little, *per se*, which is of value; also that its results are doubtfully helpful in securing the ends of education, and finally, that it is effectual only in so far as it is animated by the genuine spirit of democracy, which expresses itself almost spontaneously, and which is worked out quite differently and more worthily in the second type of democratic administration.

The first type relies upon its form, as a community relies upon its laws, to secure appropriate behavior toward the effort for democracy. It confuses the government of a school with the government of a nation. It lends itself too confidently to elections by teachers of councils, or committees. In these bodies are considered plans and problems of administration. According to the judgment rendered by these bodies, practices are instituted and carried on throughout the school. Its tendency is to remove from the teacher the sense of individual responsibility to her charges and to the community. There is danger that an automatic exercise of general procedure may become her refuge in cases requiring detailed study, personal judgment, and exceptional handling.

In line with this mechanical governmental form of democratic régime are the suggestions by teachers that they, rather than a supervisor, should rate themselves, and that the principal should be one whom they elect from among themselves to serve for a stated period or until another election. Such suggestions have been favorably received by only a few teachers. The essential weakness of their viewpoint, as I have already hinted, lies in a lack of sense of responsibility toward the community who pays the bills. Each of these two suggested practices would remove a safeguard intended to insure the careful spending of

public money. That the worker should rate himself, or that he should not be rated at all, implies that teachers, as a group, are not open either to the temptations or the inspirations which come to most human beings. This is an unproved assumption with which the taxpayers, as well as the parents, might very justly take issue, even though the moral standards and practices of the teaching group are conceded to strike a high average.

Further to place at the head of a school, as at present, a person selected on some discriminatory basis (for instance, an examination), shows a proper effort to secure increased efficiency where there is increased expenditure. A public spirited view would indicate in both these cases that the present safeguards remain.

Most of what I might term "mechanically democratic" ideas have originated elsewhere than in the schools, but possibly a few principals have opened the way along a path of reaction for whatever reception such ideas have had among teachers.

There have been martinets among principals, not frequent at any time, but increasingly rare nowadays, who maintained a severe manner, rigid rules, penalties, either automatic or extreme, and a general conception of school, not as a place where one plays a skillful, winning game, but where one wages grim warfare, through and sometimes against a teacher. The surviving teachers under this system became strong men and women, but it happened occasionally that promising material was broken on the wheel and scrapped. The tradition, rather than the type, still survives. It is such a principal's rule that furnishes for the teacher-democracy its reactionary argument.

These latter days furnish another system of administration which also throws the teachers' interest toward the mechanically organized form of teacher-democracy. There is being developed among our principals the business type of administrator, who finds that the industrial management of his plant, so to speak, engages him, to the exclusion of his interest in the professional aims of education—that is, the development of ability, personality, and character in both teachers and pupils. Our larger schools perforce furnish the temptation to abandon entirely any attempt at personal contact and influence, and some principals succumb to the pressure.

Teachers, under such circumstances, look to their leader in vain for that personal inspiration, guidance, and confidence in their skill which keeps them working coöperatively and happily under the perhaps irksome regulations needed for carrying on properly the educational work of the school. Their sense of



participation in the whole—in other words, their *esprit de corps*—finds no legitimate encouragement. They become indifferent and mechanical, or they turn to the idea of self-established government and conduct of the school, to gratify their instinctive demand for comradeship in the administrative problem. Thus it frequently happens that from the large school, rather than the small, are recruited the advocates for teacher-management of the principals' functions.

Is it not our obligation as principals to establish the democratic feeling? Must we not endeavor to return to or to maintain that democracy in which the spirit rather than the form prevails? Such a spirit, universally adopted throughout a school determines for itself its forms of procedure. By conforming to it, almost any problem is decided. It, rather than any didactic rule, becomes the guiding principle, and it satisfies the teacher's desire for participation.

What is the essence of real democracy of education? What is the goal alike for teachers and pupils? Is it not the old, simple creed of working from within, rather than without, upon the man? It is not new, but we principals sometimes forget it. Do not impose upon a man's soul a ready-made ideal from above, but patiently, respectfully, unremittingly, help him to work toward the realization of his own ideals. Many a time that little phrase has come to my rescue in dealing with a teacher. "Help her to realize her own ideal." Frankly speaking, I do not believe a principal ever gets more real value in service out of a teacher than the teacher's ideal covers. She may be given all sorts of aids on the one hand, and followed up closely on the other. Surface compliance may be secured, even good scholastic and disciplinary results obtained by pressure. But, if it is true of that teacher that her own professional pride and skill cannot be appealed to and do not furnish the intelligent and willing motive force behind her work, her service is mere lip-service, and those pupils of hers will have no lasting benefit in developed character, however much they can offer of a temporary display.

Perhaps, in one respect, I do not live up to my own declaration of faith. There is one article of my creed that I unequivocally impose upon every teacher. It is phrased thus: *Remember that in your profession the children's benefit is the first consideration.* In a long teaching experience, I have never had any teacher under my supervision, nor do I remember but one among my colleagues as a teacher who would not respond at

once to this axiom, *because it was included in her own ideal quite as truly as in mine.*

Armed with this one precept and strongly challenged by the opportunity to develop the splendid possibilities latent in the material which comes into our hands, we principals always hold the leading cards in the most responsible and, at the same time, the most fascinating game, that of character-development.

How do we play the game? What are our starting points and our goals? We develop our teachers by the sure and safe method of letting them develop others, an occupation in which they, in turn, become so absorbed that they are unconscious of their own steady growth. For this work they ask freedom. And it is in this freedom that they find their own democratic instincts gratified. Here we touch the keynote of democracy—*recognition of the right of every man to unfold into the best possible example of his own type.*

Is this the expressly stated aim? Oh, no! The obvious game is a little differently outlined. Roughly, it proceeds on these lines: "Given forty little people (or more), seven divisions of arithmetic, three hundred spelling words, so many pages of history, so many of geography, etc. Given also ninety days. The game is to move all the given materials from the outside to the inside of the heads of the forty little people in the ninety days."

That is the obvious game for the teacher, even as the obvious game for the principal is to see that the teacher accomplishes this remarkable feat. But an even greater miracle than this is proceeding steadily. Slowly but surely in all this moving of facts and processes into the heads of the forties throughout the school, a silent and wonderful growth is going on. Inside of each human being, there is unfolding the germ of the character, stamped with its own separate and individual form, animated by a complete and perfect vision of what it shall be. Help it to grow. Give it the two essentials—freedom and faith. That is the demand, not only of every teacher, but of every human being. In so far as the principal in his administration can meet this summons, and on no other grounds, can he claim to have exercised that kind of authority which truthfully may be called a democratic régime.

To give a teacher freedom does not mean to neglect her or to permit her to neglect her duties. Advice, help, suggestion, even reproof do not interfere with freedom, provided they are in line

with a teacher's ideals for herself, and provided the principal for his own part, remembers one vital thing in his interviews. He must remember that the teacher, like all the rest of us struggling human beings, greatly prefers to live up to her ideals in spite of obstacles. Therefore, when some one approaches with the obvious intention of assisting her to do that very thing, he will be received and listened to, not only with the ear, but with the heart. If he is wise, he approaches with the knowledge that the teacher, even if she has lapsed, desires to compass her ideal, and he lets her know he knows it. This is the second essential in the democratic régime—faith. *There can be no democracy without freedom, and there can be none without faith.*

In what ways can this be demonstrated to a teacher by a principal?

First, by the attitude which he constantly holds toward her as just stated, the attitude of knowing she desires the right thing and welcomes any suggestions which help her to secure it.

Second, by permitting her as often as possible to use her own judgment. For example, it is not a pedagogical crime sometimes to overrun the time set on her schedule for history or literature, *provided* (and in that provision lies your safeguard) she did it because at that dot of the clock, the souls and minds of her charges were drinking in food needed for their growth, and to stop abruptly meant for them a breaking and a lapse. Then the pedagogical crime would be not to overrun the time. The teacher can generally be safely trusted. She is as anxious as you that those children should learn and grow properly.

Third, by permitting initiative. Let the teacher who would like to try a different order of presentation, or a different method, try it out, if she can give you a brief reason for it. Even if her reason is not very good, where there is not any great harm to be done, let her go to it. You will have a better teacher in consequence. If her method does not justify itself to her, she will have more faith in your foresight and tolerance as well as a better understanding of the situation. If it does justify itself, let her continue it and use it and she will have more faith in herself and a subconscious appreciation of your willingness to let her grow. In either case, her additional wisdom will be capitalized for her pupils, and she will have had the happiness of freedom. There is nothing a man finds more inspiring than standing at his full height. One of the ancient methods of torture was to place the victim in a cage where he could not quite stand up, and could not fully lie down. The teacher can not "lie



down on the job" very long at a time. The children will see to that and advertise it. But it is essential, too, that she should have room to stand at her full height. To trust and encourage initiative will bring her that opportunity.

Fourth, by keeping her up to her ideals. She will be grateful in the end. Let me illustrate.

I know that many a principal who reads this is a past master in the art of administration and that my illustrations may seem crude, but to some they may serve as a suggestion. Also, I conclude that since the *The Principal and the Democratic Régime* has been offered as a topic for thought, we need to talk about it. I shall not apologize further for these seemingly primary illustrations.

A high-spirited and successful young teacher neglected some work for a special teacher, who consequently found fault with her. She replied impertinently and refused to give the usual lesson for the special teacher. This could easily have become a serious matter for the teacher. The real trouble was that she who prided herself on her all-round excellent results, was completely upset by the charge—reasonably enough made—of neglect. The advertised fact that she had not compassed her ideal drove her beyond herself. She would have been turned out of her classroom before she would have yielded to the special teacher. Of course she knew that she was wrong, but could not adjust herself to the situation. I sent for her, explained the seriousness of her stand, laughed at her for assuming rights not included in her position, asked her if she thought she was the City Superintendent, and remarked casually that I would have to do with her as I did sometimes with the boys who were sent down to see me—that is, go up with her myself to her room to see the lesson given for the special teacher. Fortunately she had a sense of humor, as well as a quick wit to see her way out. She said promptly that she would give the lesson to please me and not to please the special teacher. I replied that if she wouldn't break the special teacher's heart by telling her all that, I'd be grateful. She laughed, of course, and we went up together. She felt that I knew her to be a conscientious teacher. The next term she strained every nerve to show the special teacher also what an excellent teacher of that specialty she was. In other word, she was on her mettle to prove that her ideals were as high as anybody's.

Twice during the last eight years, I have had teachers come to me and ask me to discontinue inspection of their classrooms



for the rest of the term. Both teachers were doing good work, but were also studying for examinations for a higher license in which each of them ultimately succeeded. They were nervous from overwork, and assuming that I would trust their judgment, selected that elimination which they believed would reasonably lessen the strain, with the least loss to the class of their present or future work.

Another teacher had a slow heavy class, containing many children suffering from malnutrition. She could not get her usual excellent results, her pride was hurt and she finally became discouraged and angry with the class which had humiliated her. Her feelings revealed themselves in the sharpness of her voice, which betrayed her to me. She was about to do herself the injustice of becoming indifferent and cynical.

To her I talked directly about her ideals and the fact that she was abandoning them, and explained that she had come to a turning point. I looked over her class, helped her to find an interest in the individuals, and at the end of the term was able, under our detailed system of rating, to commend her for sympathy, a commendation, which with all her excellent scholastic results, she had never earned before. Moreover, the class results were unexpectedly creditable.

Thus it is that principals can depend upon the ideals of their teachers. They are bound to help those teachers to develop their own, rather than the principal's. Such freedom is not dangerous nor wasteful. With the children's benefit kept in mind as a check, the teacher will not wander far afield as to methods.

Of course I realize that to institute a democratic régime might be by no means easy for a principal unless she were supervised by an understanding and sympathetic superintendent. I want to record here my appreciation of the fact that both my immediate superintendent and the city superintendent have been to me inspirations and models in advocating democracy of administration in my own school.

I occasionally present to the teachers a difficult administrative problem, giving the conditions to be met, and asking for help in its solution. I notice that the teachers are not anxious to assume that kind of democratic responsibility. In fact, they sometimes say frankly that such belongs to the principal and they are glad it does. At the same time, their suggestions are often helpful, and when found so, are accepted with thanks. Rarely, a teacher will come to me with a proposal which is

obviously to her advantage at the expense of the class or the school. There is no difficulty in showing up this fact. The general welfare is the paramount consideration. I have never seen the teacher who failed to recognize the justice of this test of her proposal, even though she abandoned the scheme regretfully.

Let us, then, not forget to allow freedom to the teacher. There is such joy and added power in working along one's own lines and using whatever creative ability one has. Kipling flip-pantly hit a bull's-eye with his rhyme:

You may work it out by fractions or the simple rule of three,  
But the way of Tweedledum is not the way of Tweedledee.  
You may twist it, you may turn it, you may plait it till you drop,  
But the way of Pillie-Winkie's not the way of Winkie-Pop.

Teachers need variety. The problem itself (that of the forty heads and the ninety days) compels considerable inescapable uniformity. Whenever possible, let us offer the teacher a free hand to use her own interpretations of method. She may thus learn some secrets about democratic administration which in turn will be helpfully communicated to her little flock of rising, self-reliant, young Americans.

When the self-rating scheme was first widely mooted, I prepared a list of about twenty points, compiled from those given in the city ratings during the probationary period, and including some additional bases obtained from a suggestive talk by the district superintendent. I asked each teacher to consider the list, and give herself one mark for ability to instruct and one for ability to discipline. At the same time, without reference to their own marks, I rated the teachers. The similarity was remarkable. In the few differing instances, I stated, in a private interview, my reasons for the differences. Occasionally, my rating was a little higher than the teacher's. I asked at the end of the next term if they would like to repeat the process. They decided that they would not—that my judgment was equal to the task assigned to it. Their attitude, while it was amusing, was genuinely contented. They had not forgotten that list of twenty points constituting what were their ideals, no less than the supervisor's.

All the formal regulations for democracy in the world will not satisfy the one desire nearest the heart of every conscientious man or woman—to be given the opportunity to realize the beauty of that vision which he somehow knows to be enclosed even in a frail and wayward sheath. It is like the bare sketch outlined by a master of art and left for his workmen to complete.

As the gold is slowly and painstakingly laid on, or the marble persistently chipped away, in faithfulness to the lines, little by little the delicate design of tracery takes on enchanting harmony and beauty, as the master's insight planned it. We desire to be about this business of revealing the pattern, but as it is, there are many things which keep us from it. There is a certain wistfulness even in the courageous words of the Evangelist: "Now are we the sons of God and it doth not yet appear what we shall be, but we know that when He appears, we shall be like Him . . . and every man that hath this hope in him purifieth himself."

There is one fear we principals need never have and that is that teachers whose democracy is synchronized with their ideals will ever reach those ideals and settle down contentedly to dry rot. The horizon of the advancing man constantly advances too, and is always beyond his reach. Of the teacher who is given freedom and faith for the development of her own ideals, this is the true summary:

I am a part of all that I have met;  
And all experience is an arch wherethrough  
Gleams that eternal world whose margin fades  
Forever and forever as I move.

## THE PRINCIPAL AND A DEMOCRATIC RÉGIME

M. J. GILLIAM

*Principal, Waring School, St. Louis, Missouri*

A NEW IDEA of Democracy is slowly crystallizing. Broadly speaking this idea, at the present point of evolution, seems to be somewhat as follows: "That every man, woman, and child shall be given an equal opportunity in the community in which they live—that is, that they shall be debarred from no position to which their virtue of character and ability entitle them and that only one standard of efficiency be required.

President Farrand, of Cornell University, says: "The War has served to bring into sharp definition the necessity of sound ideals of citizenship as the fundamental requisite for democratic survival and stability. It is recognized that successful democracy without informed leadership is mockery."

The ends which men set for themselves are many and varied. Whatever others may think of these aims, a warm glow of satisfaction is felt when they are accomplished. A principal must work through others. He must inspire them. He must sell them

every proposition which he undertakes. He can move no faster than the factors through which he must work. He must of necessity have a goal and a definite plan to obtain this. Yet he must not ignore the collective judgment of the factors through which he works. Often this opinion is better than his own. One thing the principal must ever keep before him: He must be the friend and leader and not necessarily the boss.

This is an age of change. Old ideals are disintegrating. New ones are struggling for recognition. Nothing is settled. The schools have not escaped this unrest. Scarcely a month passes without a panacea appearing for some school ill. The school principal who can stem all these currents, counteract them, set up the ideals that are most needed for his district, harmonize these forces, get effective team work, based upon his leadership and the needs of his particular school, has achieved a real triumph.

The factors with which the principal must deal are four: (1) children, (2) teachers, (3) parents, and (4) community. In all schools, whether one room or sixty rooms, the basic problems are the same: the discovery of the weaknesses and the strength of all these factors, the removal of the one and the growth of the other, and lastly the harmonizing of these so that they will function efficiently.

School men almost universally accept the aim of education as—"The formation of correct habits that will function in the child's civilization."

Having set forth what we think a democracy is, the factors through which a principal may work, and what aim he sets himself, let us see how he can best proceed with these various factors so that he may approach his goal.

Many think the first approach of the principal is through the teachers. Yet the experience of the writer is that the surest and quickest approach is through the children. This does not mean that the others should be neglected while he is endeavoring to reach the pupils. Far from it. Yet the children will pass a more accurate judgment on the principal and in far less time than either of the others. Hence he should reach them first.

Take part in their play. Here the child is himself. The principal need not worry about his dignity. That will take care of itself. What he does need to worry about is this; is he able to place himself in the child's place, can he feel its joys, can he share its sorrows. If he cannot he will fail at the most vital point. He must be the friendly guide, and only the principal in



extreme cases. In their play he can gently begin to lead the older and stronger to recognize the rights of others and to protect the weak; to begin the formation of habits of fairness and as the boys say: "Give a fellow a square deal."

But in the cases of discipline which come to him and the complaints which the pupils bring to him are his golden opportunities, yea and his Waterloos. He must get at the facts—not by any short methods, nor cut and dried ways. His hobbies must be discarded. He must hear all the evidence. Send for all the children the pupils may wish. Allow each to state his case, to plead it if necessary. Then ask each what should be done, the punishment that should be inflicted. Ask the group present what they suggest. You need have little fear that the proposed punishment will be too light. The children will reflect the punishment they receive at home. If the school is a one-room building, the problem will be to keep the larger children from dictating the punishment of the smaller. Remember that the punishment to be meted out to the child is of only secondary importance. The main thing is the training of the children in judgment and citizenship. If there are three or more rooms a student council may be formed. The principal must make it clear why he makes his decision if he changes the verdict of the children, also must he make it equally as clear why he agrees with the children. The children must see his point of view whenever it is possible, and usually it is possible. But you say "I do not have the time. I am too busy." Take the time. We must never be too busy to listen to the children. Trivial matters are to them most vital. It is the formation of correct habits that we most desire. Within two months of this painstaking habit, the pupils will learn that they can get justice from the principal. They will also bring to him only those cases in which they have a just grievance. The children will carry the news to the parents. Both the pupils and the parents will soon, and very soon, have faith in the school. They will begin to speak of it as "our" school. They take pride in the school. The parents feel free and anxious to speak to the principal.

In the meantime this influence, this atmosphere, has reached the teacher. Whether she approves of this influence or not she feels it. Now is the time to discuss with the teacher, in meetings and privately, the practical application of this idea of democracy. The writer has encountered at this point more difficulty with his program of democracy than at any other point. Teachers are quite willing to agree with the abstract idea of

democracy, but they are not nearly so anxious to apply it to themselves. The principal will need to carry on a twofold campaign with his teachers. (1) As the various problems arise from time to time, he should attempt their solution along as broad democratic lines as the teachers are ready for. (2) Discuss, after assignment, the major problems in a democratic school. Make haste slowly. Teachers as a class are rather conservative. They like to be thought progressive, but few are willing to investigate and conscientiously try any new methods. But thank God for the few that are progressive. Blessed is the principal who has a progressive teacher in room one. Thrice blessed is he whose head assistant or assistant principal is progressive. Having sold this idea of democracy to the teachers, a student council may be organized.

The purposes of a council are well known. Each school will have some specific problems. In all of these student organizations, three things must be borne in mind: (1) You are dealing with children. (2) You are forming correct habits. (3) Let the suggestions emanate from the children, or seemingly so. Put the pupils to work. Give them some concrete thing to do. A boy whom everybody thinks is bad, a girl who is not vitally interested in her school work, should be studied till the things in which they are interested are discovered. Then around these interests build their work, their guidance. Motivate these interests. A most corrective punishment is to deprive the pupil of something he really likes to do. To discover this you may have to go home with the pupil, invite him to your home, go on an outing of some kind with him.

George was such a pupil. After long study he revealed his passion for moths. He brought his wonderful collection to school. All nature work having any possible connection with moths was used. George was given practically the control of all these lessons. Of course he talked over the plans with the teacher beforehand. Comstock's books on moths, and Porter's novels about moths were placed at George's disposal. His interests were changed and guided. He became a new boy, not all at once of course, but slowly the change came. When he slipped too far he was denied his privileges. Later it was only necessary to ask him if he had no more use for Comstock or Porter. The writer's idea of a "bad boy" is one who is worse today than yesterday, this week than last week, this month than last month. If there be such a boy, after the school has studied itself most

carefully in its dealings with this pupil and finding nothing to change, he should be taken to a psychiatric clinic.

Find out from the students of the Council what they think is wrong with the student-body. They know. They will tell you. Ask for suggestive corrections. Be sure to have the pupils of the Council assume the burden of the corrections. Have them carry back to the student-body the results and suggestions of the meetings. This is life for the child, not the vague expression, "Preparing the child for life." This is real life for him as much as he will ever get. In the consultations the principal has with the teachers and pupils he can so impress and imbue them with the idea of equality, that every child will unconsciously acquire the habit of looking at persons and their actions in the light of real democracy. Ultimately the shibboleth "Democracy" will mean something real to them. The habit once formed will grow until it will flower and fructify in the adult.

Long before all this has been accomplished the principal has met the leaders—men and women—in his community. Those who form opinions and direct conduct in his community, are real persons to him. He is real to them. This is done by special invitations to the school. By parent-teachers meetings, by open-house school, by entertainments, by picnics. Ultimately the principal should also be one of the principal leaders in this community. But he goes to these leaders asking what he can do to help them; what are their big problems; what the community needs most. This will take him to the ministers, professional men, the business men, to the club men and club women, to the lodges, even the politicians. The music hall, the dance halls, the moving picture houses, the hospitals, the clinics, the Y. W. C. A., the Y. M. C. A., the welfare organizations, even the police station should be on his visiting list. He must know and be known. At the end of two years he should know his district thoroughly.

In conclusion, the principal in a democratic régime should be the harmonizing influence in the community for the accomplishment of the true ideas of democracy. He must be the guide and friend of the children, the inspiration of the teachers, the confidant of the parents, the recognized moral director of the community. Is this asking too much? Is this an impossibility? The writer holds not, for he has come in contact with principals who had all of these though in varying degrees.





PART III  
THE PRINCIPAL AND THE PUPIL



## CHAPTER XVI

### THE PRINCIPAL'S PART IN CHARACTER EDUCATION

ROSE A. CARRIGAN

*Principal of the Shurtleff School District, Boston, Massachusetts*

ALL teachers are quick to recognize the main educational interests of their principal. Furthermore, teachers who have acquired confidence in their leader are eager to promote his main interests in so far as they can share his vision and are able to secure the necessary guidance in their efforts to substantiate his hopes.

The principal, then, who desires his pupils to receive such education in the moulding of noble character as will bear abundant fruit must first of all have a deep conviction that the supreme aim of education is to form a nobler race of men and women. It will then become his paramount concern so to direct the life in his school that the pupils will gradually accept ideals which are higher than the prevailing standards, that they will determine action by idealistic motives and move forward to more excellent life.

A principal whose work is wholly directed by this supreme aim could not, if he would, hide this fact from his corps of associate workers. His chief conscious means of accomplishment then will be to place before his teachers a clear picture of his own vision and then to offer coöperation as a constant and advice whenever needed.

In a general way, good teachers have always tried to inspire their children to good conduct. Where report cards are in use, the estimate of the individual's success in attaining this good conduct has been recorded. But this method is wholly inadequate for building a nobler race of people. Definite teaching towards the end of giving an intelligent conception of the ideal to be reached, and of arousing the right emotions which will cause determination of correspondingly right action is what is needed. Here lies the opportunity and privilege of the principal. What shall be the subject-matter of such teaching? What are some of the most effective methods in causing the learning? It is the purpose of this paper to suggest replies to these two questions.

*Subject-matter suited to character development*—The morality and high character form the basis of ideal citizenship will

hardly be disputed. A detailed analysis of an ideal citizenry will therefore be of great help in creating a vision for the teacher. Such an analysis could be made by the principal. He could then furnish each teacher with a list of the desirable qualities. The following analysis is offered in the hope that it may prove suggestive. It is not expected that it will be wholly acceptable, but it may serve as a basis for modifications by individual principals. Such modifications might well be the work of principals and their teachers working in conjunction. The acceptance of an exact list of qualities to be set up for admiration by the pupils will clarify the teacher's vision and suggest effective plans for teaching.

The analytical view herein proposed deals first with fundamental virtues with which an ideal citizen is endowed; secondly, with his characteristics as an able and conscientious leader, or an intelligent, coöperative follower, and lastly, with his admirable use of leisure.

### ANALYTICAL VIEW OF AN IDEAL CITIZEN

#### CHARACTERISTICS RESULTING FROM THE DEVELOPMENT OF THE FUNDAMENTAL VIRTUES

The most worthy type of citizen of our Republic possesses in a high degree the following fundamental virtues:

He appreciates truth and has an established habit of speaking truthfully. It is truthfulness which brings that mutual understanding which is the basis of all commerce and of credit.

He has a keen sense of justice, thereby recognizing mutual rights and refraining from infringing on the rights of others.

He recognizes that he has obligations and endeavors faithfully to fulfill them.

He recognizes and respects all the rights of others, as the right of an individual to health and to life; his right to his property; to his reputation and good name; to his opinion; to the possession of a friendship (distinctly a property right); to his inventions; to his copyrights; his right to independent action within the law which includes his right to exercise his faculties; to labor; to receive an education; and to enjoy freedom of body, of intellect, and of will.

He recognizes rights and duties which are his own and uses good judgment in the exercise of them.

He recognizes the right of constituted authority and the binding consequences of law which are fundamental to the happiness of people living and working together.



He appreciates what government does in protecting and helping people who are trying to live and work together, and he gives first, respect, then gratitude, and finally love to his government. As a consequence he is law-abiding, obedient, and works with others for the common weal.

He has a proper sense of loyalty and is loyal to his family, his institutions, his community, his country, his faith, and to any worthy cause in which he believes. This loyalty governs his course even when it calls for action directly opposed to his own personal desires or comfort. It makes a heavy demand on his virtue of unselfishness.

By coöperative activity he helps to stabilize the moral supports of the community and also its industrial life. He either initiates or participates in the good movements of his community, city, or State.

He has a practical respect for industry and thrift. He not only keeps himself out of the poor-house and makes a respectable living, but provides sufficiently for those for whom he is responsible.

He has a practical humility in that he appreciates his dependence on his fellow citizens and others and senses his own obligations to them.

He is kindly disposed in thought, speech, and act, always giving the person under judgment the benefit of the doubt. He is not only just but is benevolent, inclining to give to others more than is their right—that is, to some extent, he is a philanthropist.

He is a searcher for the good in persons, institutions, and in reform measures; is constructive, not destructive, in influence and action.

He is actuated by lofty motives rather than by a desire for his own pleasure or aggrandizement.

#### CHARACTERISTICS RESULTING FROM ADJUSTMENT OF LIFE WORK TO NATIVE ENDOWMENT

The most worthy type of citizen of our Republic is, by virtue of his native endowment of personality and intellectuality, either a leader in the way of truth, justice, righteousness, and betterment, or an intelligent and willing follower of such leadership. In either case, his work calls into play his best abilities and capacities.

It commonly happens that an individual is endowed with qualities of leadership in one or more fields of endeavor and with qualities of fellowship in other fields. He may then be at one time a leader and at another time a follower. In either case he will need to have developed the fundamental virtues listed under the foregoing caption.

*The leader* should be a person of vision. In a marked degree he should be able and willing to conduct work of a superior type because he is able: (a) To think straight; (b) to distinguish between right and wrong, good and evil, and with a quickened conscience to act promptly for the right and the good; (c) to recognize present wrongs, and work for their elimination; (d) to see great power and benefit in coöperative endeavor and in individual participation; (e) to coöperate for a good cause, even at the sacrifice of personal convenience; (f) to deal justly; (g) to enjoy broadmindedness to the point of seeing another's point of view; (h) to arrive at honest convictions for sensible reasons with no fear of airing them in the light of day, and to cultivate a willingness to express these convictions and use them in forming public opinion; (i) to find enjoyment in his work; (j) to serve and to lead when opportunities come; (k) to show to the American Government a respect gained through a more or less intimate knowledge of its history and machinery; (l) to give interest and support to education; and (m) to maintain interest in philanthropic activities, and if possible, to take active part in at least one.

*The follower* must in a marked degree be able and willing: (a) To choose a leader who not only is of the right calibre, but who also has special fitness for the work he is to do; (b) to vote for a candidate for office with a knowledge of the determining nature of his vote; (c) to coöperate for the sake of a cause in which he honestly believes; (d) to work for right without a dominating desire for personal gain; (e) to be to the end, in spite of all difficulties and obstacles, faithful and loyal to the leader in whom he believes; (f) to relish hard work; (g) to discharge all duties, even disagreeable and menial ones, with interest and faithfulness; (h) to recognize the principle of majority rule; (i) to respect the United States Government, not only because of its own intrinsic worth and because it is his government, but also because he knows by experience its protection and help.

CHARACTERISTICS RESULTING FROM DEVELOPED CAPACITY FOR THE  
RIGHT USE OF LEISURE

The most worthy type of citizen of our Republic has a capacity for enjoyment which is innocent, elevating, and refining, and exercises that capacity. He delights in reading: (a) Biographies of great men and women; (b) fiction that causes the mind to dwell with pleasure on what is true and noble; (c) poetry that fills the mind with mighty and beautiful thoughts; and (d) drama in which good is presented in all its attractiveness but evil in all its baseness.

He finds refreshment in music that touches the heart and moves the best emotions.

He enjoys pictures that portray the lovely in color and the historical story in the language of art.

He reverences religion that governs the mainspring of motives and of actions.

He loves the fields and the streams and the woods, and finds enjoyment in the beauties of nature.

He desires to beautify his surroundings in doors and out, and finds recreation in personally accomplishing improvements in his environment.

He indulges in clean sports and encourages fair play, whether his part be that of a principal or a spectator.

He chooses an avocation of constructive and interesting character, rather than one of personal profit.

A single individual may not seek diversion in all the recreations listed above, but he will have taste and capacity for the enjoyment of some, and will indulge that taste and exercise that capacity.

After the principal and his teachers have worked out something like the foregoing, something which might perhaps be thought of as a chart of idealistic behavior for a citizen of a republic, it will become a relatively easy matter to select therefrom a category of such attitudes of mind and such motives and habits of action as are desirable in the school and society where young people live and work together. The selection will fix in the minds of both principal and teachers the goal for which they together shall constantly strive.

The principal will have several rôles to perform in giving every possible support to his teachers in working out an effective plan of procedure. Wherever possible he will add to the teachers' library material which will aid her in definite ways to see that "the issues of life are out of the heart," that "we grow by being

consciously or unconsciously dissatisfied with our familiar selves and by wanting new and better," that "following the line of least resistance is what makes many rivers—and some people—so crooked," and that the greatest need of the teacher is for patience, infinite patience. Then, too, the principal can see to it that the teacher has ready at hand a large number of stories, biographies of real people, current happenings perhaps, which, with unfailing power, will rouse to concert pitch the best emotions, so that the child will not say merely, "A lie is wrong," but "I hate a lie; I will never tell one."

To the principal is given the opportunity to create in large measure the spirit of the school. He can furnish much of the machinery with which the stage can be set for the bringing out of admiration for noble conduct. There is the weekly assembly with its abundant opportunity to set before the child, in attractive form, the best and noblest ideals to stamp these ideals so effectively upon his mind that they will guide his thoughts and help him to adopt right principles for action. There are also the class or school organizations, the club activities, and innumerable other agencies which the principal can encourage, all of which offer a fine setting for character development through repeated action, by which the child builds for himself an established habit of thinking and acting in accordance with right principles which he has adopted.

The foregoing chart of ideal qualities may be studied with a view to discovering among the various traits named one root principle, the teaching of which would be far-reaching in its effect. Such a study will easily reveal unselfishness as a great foundation virtue. The teacher who is successful in communicating to other pupils this spirit of unselfishness so that they will build for themselves a strong habit of acting unselfishly, will have taught with effectiveness many other specific virtues as well. It is this virtue of unselfishness, then, which is recommended as the most important piece of subject-matter in the building of noble character. The principal will take an active part in making attractive the ideal of unselfish action and will give public recognition for distinction in this field.

*Effective methods of procedure*—1. Direct instruction is essential. It must be managed with skill and tactfulness, but it must be given. Pupils must be made conscious of objectives; they must be made acquainted with the attractiveness of ideal thoughts and behavior; they must be made dissatisfied with the lower levels of conduct and satisfied with only the higher levels. It is proposed that the principal sanction the daily discussion of



a suitable topic for perhaps fifteen minutes. He would do well to suggest a list of subjects or problems dealing with a specific virtue accompanied by the expressed hope that the teacher would add others of her own, and that the children would bring to class for solution personal difficulties involving the virtue under discussion.

2. But instruction and discussion alone will not bring about the desired conduct. Numerous activities in which the virtue is consciously practiced are necessary. It is the business of the principal to give his support to such activities. Space will allow for but one example here. Suppose the virtues under discussion to be unselfishness and benevolence. A thrift club may be encouraged to earn money and allowed the privilege of dispensing it in some self-chosen charity which calls for personal service on the part of each individual member.

Teachers must be kept ever mindful that the principal believes that once the ideal conception has taken root in the minds of the pupils it is practice, conscious practice early and late which makes perfect. The sanction of a socialized life in the classroom will provide many opportunities for the practice of virtues which are fundamental to noble living.

It would be desirable for principals to keep in the office for a basis of conference with individual pupils who are failing in practice and with their parents, a record of the pupil's achievements and failures. This record should be kept in such form as would make interpretation impossible by any other than the principal himself, because no statement of failures in virtue should form a permanent record against any child. Interpretation only by the use of a cipher or key kept by the principal is recommended. But the school leader should know intimately the obstacles to success which are met by individual pupils in his school. He should constitute himself friend, counsellor, and guide when the teacher has failed to arouse the right emotions.

3. If the supreme aim of education is to form a nobler race of people, then every subject in the curriculum should lend itself to the development of qualities of noble character in the pupils. It is the privilege of the principal to indicate to teachers points in the program of studies where their efforts at education in character will be fortified if they emphasize the character values in the lives of men and women whose names are connected with the subject-matter considered, and stress any deeds or qualities connected with the day's studies which will help towards the admiration of ideals and the desire for noble achievement.

*Professional meetings of teachers a source of influence*—A principal has within his power an effective means for shaping the convictions and ambitions of his teachers in his leadership of their professional meetings at regular intervals. The principal who wishes his teachers to believe that the supreme end of public education is the building of a nobler race of people will fashion some of his programs of teachers' meetings about the subject of character education in the school.

If children are to be given education in character, the teacher must have a clear vision of the ideal to be approached. She must have some fixed principle to guide both her own life and her teaching. She must also have a deep conviction that effort at the character education of her pupils is not only wholly worthwhile but is possible of achievement in some measure with every individual.

To help teachers to these essential beliefs and practices, it is recommended that discussion of pertinent topics be a part of the programs for teachers' meetings. Many appropriate topics might be listed. The following are offered as suggestive material:

1. Detailed analytical consideration of the ideal citizen.

2. Discussion of the five following theses:

- (a) The ideal citizen is a person of character.

- (b) The ultimate goal of training is to produce men and women of the noblest character possible to their capacity and consistent with the gifts of their opportunity.

- (c) Character is that which causes a life to be dominated by principle rather than by mere impulse or circumstance.

- (d) Fixed principles govern attitudes and actions when ideals have been indelibly stamped into the mind in some concrete form.

- (e) The citizen of character in a Republic like the United States is a member of the democratic group, who, first of all, loves the fundamental virtues and practices them; whose work is a contribution of his best talents and efforts to the welfare of his group; and whose leisure time is spent in enjoyments that are both elevating to himself and edifying to his associates.

The principal who, by his own life, exemplifies nobility of character, who inspires his teachers to train pupils to noble living through personal conferences, discussions at teachers' meetings, and through the encouragement of the right kind of social activities in his school and community, will make a large contribution to ideals and noble practice in the life of the Nation.

## CHAPTER XVII

### TWO TYPES OF EXPERIMENTAL PROGRAMS IN THE EDUCATION OF GIFTED CHILDREN AND THEIR ULTIMATE EFFECTS

GEORGE C. KYTE

*Associate Professor of Education, Washington University  
St. Louis, Missouri*

DURING the last decade, opinion as to how the gifted child should be educated has been supplanted gradually by more substantial information, obtained from a number of scientific investigations and experiments. Some of these studies have dealt with definite programs for (1) experimenting in teaching gifted children, and (2) upon their conclusion, immediately checking up the results obtained by applying various kinds of objective measurements. Other investigations have been confined to (1) discovering cases of gifted children who have been exposed to some special learning programs at some time and (2) determining what ultimate gains or losses had occurred because of them.

More satisfactory solution to the problem, "How shall the gifted child be trained?" will constitute the outcome of many scientific experiments and investigations in which combinations of both types have been maintained for the same groups of children. Such studies, then, should consist of (1) selecting and intensively studying gifted children, (2) developing and exposing them to experimental programs planned to meet their needs, and (3) checking up the results of such programs over a period of years after the experiments have been concluded.

*Gifted children in Berkeley, California.*—In the following studies, the writer presents the data obtained from investigations in which he has followed this type of program. The original series of experiments involved over one hundred children located in various grades of the Emerson Elementary School, of Berkeley, California. An intensive study which includes the nature of this school and its community will appear shortly in a publication of the University of California.<sup>1</sup> Therefore, only a brief résumé of the facts needs to be included here.

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<sup>1</sup> George C. Kyte. *Reorganization and Administration of an Elementary School to Meet the Needs of a Community*; a thesis submitted for partially meeting the requirements for the Degree of Doctor of Education. Publication of Department of Education; University of California.

The Emerson School is located in a residence district adjacent to the campus of the University of California. In this community are to be found the homes of highly educated successful men. The survey made by the writer disclosed that the fathers of the pupils are mainly professional men—mining, mechanical, and similar types of engineers, financiers, and other equally well-trained and successful men. There are a few skilled mechanics and practically no unskilled laborers. Almost all of the pupils' mothers are free from duties except the care of their exceptionally fine households. The few who are engaged in other pursuits are in occupations which compare favorably with those of the fathers. Over eighty-five per cent of the adult population are American born and only two per cent are not of the white race. Slightly less than ninety-five per cent are American citizens.

With very few exceptions, the children were native Americans, a large majority having been born in the State of California. An extensive program of mental testing in the grades disclosed that the school population consisted of (1) an abnormally small group of children whose level of intelligence is below normal; (2) a much larger group of children ranging from slightly above normal to the very gifted type. Individual intelligence testing<sup>1</sup> of all children in the first two grades and all children in the kindergarten five years of age and older, disclosed that the median Emerson School pupil had an intelligence quotient of 112 and the average in the school, an I. Q. of 114. Other studies disclosed that one pupil in every twenty possessed an intelligence quotient of 140 or higher. This type of individual occurs about once in a thousand cases where normal distributions are found.<sup>2</sup>

Therefore, the Emerson School proved an excellent laboratory for carrying on experiments in training gifted children. The writer was given the opportunity to deal with it as such when he was appointed Supervising Principal by Superintendent H. B. Wilson in the fall of 1919. For several years, experiments were carried on and records of them kept. Many of these are to be found in the doctor of education thesis referred to above. Parts of the studies in the present article are reported in it also. One of the experiments in the education of gifted children in the primary grades can be found in the First Yearbook of the De-

<sup>1</sup> Stanford Revision of the Binet-Simon Intelligence Test.

<sup>2</sup> Terman, Lewis. *The Measurement of Intelligence*, pp. 65 to 67.



partment of Elementary School Principals.<sup>1</sup> Hence, this type of young child is not dealt with in the present report.

The two groups of children include pupils who were in special experimental programs in the third to sixth grades of the school, and about whom follow-up records could be obtained from other schools to which they were promoted eventually. These were various junior high schools of Berkeley and Oakland. Hence, records from them would not be influenced by personal interests of the teachers in these special cases. This, of course, would not have been very true if the subsequent data came from the teachers in the Emerson School, all of whom had participated actively in the series of experiments. Therefore, a more ideal type of scientific study was made possible. The selection of the gifted children and educational experimentation with them was carried on by one group of teachers in a school; the investigation of the effects of their programs was based largely upon data obtained from an entirely different group of teachers in schools other than that in which the experiments were conducted.

Two distinct studies of this nature were made. One consisted of fifteen children out of a special class of eighteen gifted pupils in which rapid progress and enrichment of learning were combined. The second study includes twenty-eight out of a much larger number of cases where rapid progress programs were carried out. These forty-three cases were all, about whom considerable follow-up data could be obtained. Many other gifted pupils who had been selected and given special training as such had moved away from the district or data about them were not received. Therefore, they could not be included in this report.

*Gifted pupils enrolled in the enrichment-rapid progress program.*—When the first extensive reorganization program was introduced into the Emerson School, in January, 1920, it was found possible to make provision for one special class in the upper grades. This class was to be composed of a small group of gifted children. Pupils from the fifth grades were to be selected because, during the previous four years or more, children had been moving along at the rate of one grade per year,<sup>2</sup> and, therefore, it seemed reasonable to assume that a sufficiently large

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<sup>1</sup> George C. Kyte. An Experiment in the Education of Gifted Children in the First Grade. First Yearbook of the Department of Elementary School Principals, National Education Association, 1922, pp. 71-80.

<sup>2</sup> George C. Kyte. The Reorganization and Administration of an Elementary School to Meet the Needs of a Community. Chapter IV.

group of gifted children could be found to form a limited class. Also they would remain in the building at least a half year afterward and not have to make immediate readjustment to junior high schools as would have been the situation for the sixth-grade pupils.

In order to locate the pupils from which final selection was to be made, each child in the beginning low and high fifth grades was rated by the teachers with respect to his general intelligence. The seven-point scale used for this purpose was as follows: (1) "Very Superior"; (2) "Superior"; (3) "Above average"; (4) "Average"; (5) "Below average"; (6) "Inferior"; and (7) "Very Inferior." Before ratings were made, these points were explained in their relation to a normal probability curve of distribution. Each pupil was rated independently by three teachers who had been in contact with his class intimately enough to feel quite certain in making a judgment. The composite value was found by averaging the three ratings. The previous scholarship records of each pupil were evaluated and reduced to a single index number by the writer. This was based on the same seven-point scale of definitions. As additional checks, the age-grade distributions and previous progress records were determined for all pupils in the two fifth grades. Information that could be obtained with respect to such items as pupils' health, coöperation of parents, occupation of fathers, and education of parents was accumulated, also.

When this data had been compiled, the Oakland Revision of the Otis Group Intelligence Scale was obtained in sufficient numbers for testing the upper fifty per cent of the high fifth grade and upper thirty per cent of the low fifth grade. The Army Alpha Intelligence Scale was used to test all of the children in these grades. The reader should bear in mind that in January, 1920, group intelligence testing was in its infancy and, therefore, it was difficult to obtain grade standards or age norms for these tests. Army Alpha had been released only a short time before and the Otis Scale had not been used extensively. The basis for transmuting the test scores to grade standards on the latter test was developed from 2000 cases<sup>1</sup> in Oakland, Berkeley, and Alameda, 1100 being those of finishing eighth-grade pupils and the remainder distributed over other grades so that there were ap-

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<sup>1</sup> Virgil E. Dickson and John K. Norton, *The Otis Group Intelligence Scale Applied to the Elementary School Graduating Classes of Oakland*. *Journal of Educational Research* III, 106-115.

proximately 100 cases per half grade from the finishing high fourth to the finishing high tenth grades inclusive. The beginning grade norms, the averages, were thus found to be as follows: low fifth, 40; low sixth, 50; low seventh, 61; low eighth, 72; low ninth, 83; low tenth, 92, and low eleventh, 102. Similarly, age scores were found and a table constructed by the writer similar to that found in the study of Dickson and Norton cited previously. The table of age scores for Army Alpha was obtained from the unpublished findings of Dr. Leroy Stockton, in San Jose, where he tested several hundred elementary school pupils using this intelligence scale.

With all of this data at hand, twelve pupils were selected from the beginning high fifth grade and six pupils from the low fifth grade. The smaller number from the lower grade was taken with the feeling that it was an even more highly select group than the larger one from the higher grade. Hence, it would compensate for the fact that the larger group was more advanced in its school work.

The group of eighteen pupils was designated as the "special fifth grade." The explanation given to the parents, the public, the pupils themselves, and the other pupils in the school was as follows: During the past few years, these children had worked faithfully, and conscientiously and, therefore, had achieved high scholarship records. As a reward for their past efforts and evident willingness to be studious, they had been offered a place in the class. They had seriously agreed to become members of this special fifth grade recognizing that it opened to them the exceptional opportunity of rapid progress in classwork as interesting as they wished to make it. All understood that if any member of the selected group failed to put forth the effort that the rest had signified their intention of doing he would be returned to his original regular class. On the other hand, if any pupil still in the regular low or high fifth grades earned special recognition as a student comparable to those in the special class he would be transferred to this special fifth grade. During the half year, however, no child was removed from the group and no one was added to it.

Table 1 contains the most important data accumulated about each of the eighteen pupils in the special class. There were thirteen boys and five girls. Their chronological ages were such that all of the pupils classified as at age or over age for their respective grades. Overageness was due, in every case, to the enrolment of the pupils in the first grade some time after they



TABLE 1—DATA WITH RESPECT TO THE EIGHTEEN GIFTED PUPILS  
SELECTED FROM THE FIFTH GRADES FOR ENROLMENT IN  
THE EXPERIMENTAL CLASS

Pupil	Sex	Grade in School	Previous Progress	Schol. Record	Chron. Age Yrs.-Mo.	Teachers Rating	General Intelligence				Grade Level of Intel.
							Otis Scale	Army Alpha	Mental Age	Intel. Quot.	
S. G.	B	High 5	Rapid	1	10-2	1	102	102	16	157	Eleventh
R. A.	B	High 5	Rapid	1	9-8	1	99	106	15-11	164	Tenth
B. S.	B	High 5	Rapid	1	9-10	3	76	97	14-9	150	Eighth
L. N.	B	High 5	Normal	4	10-5	2	59	90	13-10	133	Sixth
W. O.	B	High 5	Normal	1	10-5	1	70	74	13-10	133	Eighth
K. M.	B	High 5	Normal	1	10-5	1	59	84	13-8	131	Sixth
M. S.	G	High 5	Rapid	1	10	3	61	72	13-4	133	Seventh
F. L.	B	High 5	Normal	2	11-1	1	65	61	13-1	118	Seventh
E. F.	G	High 5	Normal	2	11-3	2	54	69	12-11	115	Sixth
A. S.	B	High 5	Normal	3	11-10	2	60	48	12-6	107	Seventh
M. W.	G	High 5	Normal	1	10-7	1	50	60	12-4	117	Sixth
D. H.	G	High 5	Normal	1	10-4	1	54	32	11-8	113	Sixth
B. S.	G	Low 5	Rapid	2	9-8	1	72	75	13-11	144	Eighth
M. M.	B	Low 5	Normal	1	10-2	1	65	78	13-9	135	Seventh
R. M.	B	Low 5	Normal	2	11-1	1	69	70	13-7	123	Seventh
N. W.	B	Low 5	Normal	2	9-5	1	74	52	13-3	141	Eighth
F. B.	B	Low 5	Rapid	1	10-2	1	62	54	12-10	126	Seventh
R. H.	B	Low 5	Rapid	1	10-7	2	58	51	12-7	119	Sixth
Median, High 5				1	10-5	1			13-6	132	Seventh
Median, Low 5				1.5	10-2	1			13-5	131	Seventh

had become six years of age. No pupil in the group had been retarded. One had skipped two half terms of work, seven had gained a half term, and ten had made normal progress only. The boy who had made very rapid progress had not entered school until he was about eight years old.

The ranges of chronological ages in the two divisions were considerably less than that which is found in common class distributions. The range for the high division was from nine years, eight months to eleven years, three months, and for the low division, nine years, five months to eleven years, one month. The median ages of the respective groups were ten years, five months and ten years, two months. Eleven of the twelve high fifth grade pupils had achieved excellent or very satisfactory scholarships, and all of the low fifth grade pupils had achieved the same type of high record. The one exception seemed to have been due to the timidity of the boy, whose real ability had been overlooked most of the time.

According to the composite judgment of the teachers all of the eighteen pupils were related as above average—all but two, superior or very superior—in intelligence. The scores from the two group intelligence tests were transmuted into mental ages, as explained above, and averaged for each child. The mental ages were found to be much greater than the chronological ages.



The mental age range of the high fifth division was from eleven years, eight months to sixteen years, and the median mental age was thirteen years, five months. Hence, in terms of mental age, all eighteen children could well be considered as retarded for the grade in which they were enrolled. According to the Otis Test scores, six pupils were mentally as old as the average beginning sixth-grade pupil; six others, as the average beginning seventh; four, beginning eighth; one, beginning tenth; and one, beginning eleventh.

The group intelligence quotients were found by dividing the mental ages by the chronological ages.<sup>1</sup> These indicate that all of the pupils were above average in intelligence. With one exception, the range of intelligence quotients of the high fifth division was from 113 to 164; the range in the low fifth division was from 119 to 144. Pupil A. S., with an intelligence quotient of 107, was included in the class because of his age, his markedly improved scholarship record of the previous two years, the teacher's belief in his ability to do satisfactory work with the group, and his fairly high score on the Otis Group Intelligence Scale. The more highly selected small group from the low fifth grade resulted from the intention of preventing this group from being handicapped by the more advanced high fifth grade division.

Several other items which were collected with respect to the pupils have been omitted from the table because they were common to practically all of them. The additional data, for instance, indicated that all of the pupils enjoyed very good health and had been attending school with marked regularity. In the teachers' judgment, all of the pupils came from homes where coöperation would be given the school faculty whenever need arose.

The children's home environments were characterized by marked educational influences. Of the eighteen fathers, eleven were graduates of universities (three holding Ph.D.'s); one, a graduate of the United States Naval Academy; two, graduates of the most advanced technological schools; three, high school graduates; and only one had left school at the end of the fifth grade. Of the mothers, thirteen were university graduates; four high-school graduates; and the eighteenth had attended a high school for several years. Ten of the children were from homes

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<sup>1</sup> Individual tests given most of these pupils later indicated a very high reliability in the findings. In most cases the G. I. Q.'s were slightly lower than the I. Q.'s.

in which both parents were university graduates. An analysis of the occupation of the fathers indicated that they were achieving success in life. There were three university professors, four attorneys, two professional engineers, two certified accountants, one naval commander, four merchants, one realty broker, and one traveling salesman in the group.

The class was given a regular place in the school organization. At the time that provision was made for this class, a modified program of departmentalization was put into operation from the third grade through the sixth. Just as the other classes in this group, the special class reported as a class to the four special teachers of music, history, geography, and drawing respectively. Ninety minutes one day a week, the low and high divisions reported for domestic science or manual training with the regular low and high fifth grades respectively. For approximately sixty per cent of each day, the class received instruction in all other subjects from one teacher, a university graduate, who, as a teacher, was considered very successful.

With the exception of work in language and spelling, the regular high fifth grade constituted a very good control group. The same four special teachers and the teacher of regular studies instructed this class and the special class in the same subjects, one of the special teachers also having the former for language and spelling. It constituted the class which, at the beginning of the experiment, had achieved the same school grade as the high division in the special class. Also, it would mark the best basis of comparison with the two divisions, for the lower one at the close of the term, it was thought, ought to have achieved results somewhat nearer the averages of this control class than those of any other. Hence, results would indicate what had been accomplished under the same teachers of two groups, (1) the gifted group as compared with the more normally distributed one which had started at the same point of achievement, and (2) the gifted group starting one half year behind the control group.

Although the exceptionally gifted children with all inclusive good records and data had been removed from this regular fifth grade, still some gifted children remained. Table 2, containing the distribution of scores on The Army Alpha Test made by the pupils of the special fifth and regular high fifth-grade classes, indicates that many of the children in the regular high fifth-grade class were individuals with high mentality. However, the

TABLE 2—DISTRIBUTION OF THE SCORES ON THE ARMY ALPHA INTELLIGENCE SCALE OF THE PUPILS IN THE SPECIAL FIFTH GRADE AND THE REGULAR HIGH FIFTH GRADE

Army Alpha Scores	Regular High 5	Special Low Div.	High 5 High Div.
100-109	.....	.....	2
90- 99	.....	.....	2
80- 89	1	.....	1
70- 79	1	3	2
60- 69	.....	.....	3
50- 59	7	3	.....
40- 49	5	.....	1
30- 39	6	.....	1
20- 29	7	.....	.....
Average.....	42.8	65.0	74.2

preponderance of children scored considerably below the averages for the divisions in the special class. Only one in this latter class scored below the average of the control class. Therefore, it is evident that, from the distribution of intelligence test scores, much more was to be expected of each of the two special divisions than of the regular high fifth grade. The latter would prove, therefore, one of the best controls for checking up results.

From the very beginning the pupils in the two sections of the special class developed a rate of progress which was more rapid than normal. This occurred without pressure on the part of the teacher. It appeared to be more nearly the natural rate for the group, requiring very little additional effort on the part of the various individuals and seemingly no greater than that which the normal children in the regular classes were making. In a surprisingly short time, improvement was apparent in all subjects except penmanship. Throughout the term this was the only subject in which marked improvement did not occur, even though it was given as much attention as any other subject within the limits of normal time allotments.

During the term, the classroom procedures were modified for the special class. Its demands, most of the time expressed in terms of frank requests by groups of individuals in the divisions, led to enrichment and enlargement of experiences which were in keeping with their natural interests and desires. The curriculum was modified, also, to meet the particular needs of various individuals in the class. For example, instead of using one reading text, the great differences in reading ability led to the division of the class into three sections. These were formed on the basis

of results obtained by testing the class with the Monroe Silent Reading Test, for grades six, seven, and eight. The six best readers in the high fifth division constituted the first group, the other six, the second group, and the low fifth, the third. For each group, a book was selected which seemed to be more nearly in keeping with the section's development. These books were not readers—they were masterpieces of literature, more interesting to children and wholly worth while. For example, Pyle's Robin Hood and Heide's *Moni, the Goat Boy* were read. This type of reading was followed throughout the term. Most of it was done silently. The groups were organized so that each discussed the book it was reading and recast the material in such a way as to keep the other groups informed of the progress of the plot. Hence, a part of the language work thus grew out of this activity. Oral reading occurred when especially good passages were found and which the members of the group agreed, or one individual believed, ought to be shared with others in the class.

How natural activities were developed in the classroom because of the normal interests of the pupils is exemplified in the experiences that grew out of the reading of Robin Hood. The group reading the book became so enthusiastic over it that their account of it became a fascinating part of the daily program. It resulted in the decision of the class to dramatize the story. The pupils planned and perfected their play, developed an organization for presenting it, and assigned the various parts to those in the school.

This source of interest was used as the best of art by the drawing teacher. The children wished to illustrate the story. Two scenes were chosen which were to be developed into large pictures. A general plan for making composite pictures was formulated. The actual completion of these projects required almost the whole of the term. They involved drawing and painting from still life, freehand copying of pictures of castles and bridges, and sketching living models. In assembling the material for the two scenes, problems in composition, arrangement, perspective, and the like had to be solved. In similar ways the other subjects of the curriculum were used as the basis for enlarging and enriching experience. This was also done at a rate considerably faster than in the regular classes.

At the close of the half year, this special class was discontinued because of expedient administrative problems arising. The



members of the class were returned to regular classes. All of these pupils were placed in classes one half year in advance of those from which they had been selected before and, hence, had gained an extra half grade in school. Table 3 contains the data

TABLE 3—COMPARISON OF THE MEDIAN SCORES IN EDUCATIONAL TESTS GIVEN TO THE SPECIAL AND REGULAR CLASSES AT THE CLOSE OF THE TERM

Class	Trabue Lang. C.	Ayres Spelling 73 per cent	Starch	Monroe	Read.	Ayres	Pen- man- ship
			Arith.	Rate	Compr.	Speed	Qual.
Special Fifth, Low Division.....	14	77.5	10.33	98.5	20.9	52.5	48.3
Special Fifth, High Division.....	16	91.3	10.05	84.8*	24.9*	60	54
Regular Fifth, Low Division.....	12	73.8	7.67	87.2	14.6	59	50
Regular Fifth, High Division.....	11.8	68.8	8.1	98.7	21.2	70	49.8
Regular Sixth, Low Division.....	14.3	79.2	9.2	86.7*	20.8*	65	55
STANDARDS, Fin- ishing Fifth.....	9.6	73	7.8	89	19	64	50
STANDARDS, Mid- dle Sixth.....		66				68	52
STANDARDS, Fin- ishing Sixth.....	11	73	9.4	88*	20*	71	54

\* Test II for grades 6, 7, 8.

which justified the advanced placement of the pupils. In the standardized educational tests given to the classes at the close of the term of experimentation, the special class divisions had attained more satisfactory results than the regular high fifth and low sixth-grade classes. The exception to this was in the subject of penmanship. The special low and high fifth sections had achieved such superior results in comparison with those of the respective regular low and high fifth-grade classes from which the former groups had been selected that comparison is, obviously, unnecessary. All of the evidence points to the correctness of the teachers' judgments that the special group had completed at least a year's work in one half year. In many of the tests, the results of the special class were better than the standards for grades six months or more beyond the ones to which these divisions were advanced at the close of the term.

During the next half-year all of the pupils from this special class who continued in the school proved to be good scholars. Their attitude toward their fellows and their school was all that

could be desired. At the end of this new term, the higher division was promoted with the other regular members of the class to the seventh grade of the junior high schools. Then following the lower division was promoted from the Emerson School. Hence, in these new situations, there arose a means of obtaining additional follow-up data as to what happened to the various members of the group. Such evidence, as was pointed out in the introduction, would be free from whatever bias teachers had who participated in the experiment, and were consequently, sympathetic towards it. What data to obtain from this point on became a problem for the investigator.

The first check on these students was made at the close of the first seven weeks of work in the junior high schools. This was obtained in terms of (1) scholarship reports, (2) teacher's judgment as to strength and weaknesses of pupils in the subjects which were continued from the elementary school work. This information was asked about all pupils promoted from the Emerson School, so that the exceptional cases would not be labeled.

A comparison with the first half year final report records disclosed the unreliability of the early first period reports. Therefore, they are omitted from this study. However, in reply to the questions asked, in no instance was a report received as to omissions in the learning of these special cases. A common comment was that the pupils in comparison to others "show careful preparation and readiness for our classes." With respect to attitude towards school, such comments were made as "good, even though he does not seem to have enough to keep him busy all of the time," "always doing the right thing at the right time," and "interested, bright, and applies well." Hence, at the close of seven weeks in the upper schools, teachers had only praise for these children.

The earliest most satisfactory check, data which could be tabulated as reasonably reliable, consisted of the first term's averages in the junior high-school subjects. These, of course, had formed the basis for promotion. This is contained in Table 4 below. The system of marks used by the junior high school teachers, reduced to a comparable basis, included five marks which are best defined as follows: "1," Excellent; "2," Good; "3," Satisfactory; "3-," Conditional, and "4," Failure. The use of other "minus" and "plus" signs shades these meanings accordingly.

TABLE 4.—THE SCHOLARSHIP RECORD OF FIFTEEN GIFTED PUPILS FROM THE SPECIAL CLASS AT THE CLOSE OF THEIR FIRST TERM IN THE JUNIOR HIGH SCHOOLS

Group	Pupil	Intel. Quo.	Ratings Received in Junior High School Subjects						
			Eng.	Math.	Hist.	Music	Latin	French	Gen. Sci.
A	S. G.	157	1—	2	1—	1—	1	.....	.....
A	R. A.	164	2+	3	1—	1	.....	.....	2+
A	B. S.	150	2	3+	2	1—	.....	2	.....
A	L. N.	133	1	2	1	1	1	.....	.....
A	W. O.	133	2	3	2	1	.....	3	3
A	K. M.	131	1—	2	1—	2	2+	.....	.....
A	M. S.	133	2+	2—	2	1	1	.....	.....
A	F. L.	118	2+	2—	2+	2—	.....	2—	.....
A	M. W.	117	2+	2+	3+	2+	.....	.....	1
B	B. S.	144	3+	3+	3+	2	.....	3	.....
B	M. M.	135	2—	3	2	2+	.....	2+	.....
B	R. M.	123	2—	2+	2	2—	.....	.....	2
B	N. W.	141	3	2	3	2	.....	2*	2
B	F. B.	126	1—	2	1—	2+	3+	.....	.....
B	R. H.	119	3+	1—	2—	1—	.....	1*	.....
Median score.....			2+	2	2	1—	1	2	2—
Median score for Normal Progress Pupils.....			2—	2—	3	2	3	2—	3

\* Two pupils elected Spanish instead of French.

Singularly, three pupils about whom little data could be obtained during the period of following up this special class were all in the higher division. Also, they were the pupils with the lowest intelligence quotients. (A. S. 107; D. H. 113; and E. F. 115). A. S. enrolled in a private school, and the other two pupils moved away. The group left, therefore, consisted of pupils with intelligence quotients ranging from 117 to 164. Hence, all were in reality gifted children, considerably above the average—the type with which this study deals.

In Table 4, the members of the original groups have been kept in the same order as in Table 1, with the exception that A. S., D. H., and E. F., are omitted because of lack of data, primarily. Wherever it becomes necessary to speak of the two divisions henceforth, they will be called "A" and "B" groups in the interest of the economy of space—"A," the original special high fifth division, and "B," the original special low fifth division.

The scholarship records of the fifteen gifted children disclose that in no subject did any pupil achieve less than satisfactory work. Only a comparatively small number of marks were just "3," satisfactory. There is a preponderance of marks above "2." Since measures of central tendency more reliably represent the

facts in a distribution of teachers' marks, this means of obtaining data was used here. The median marks were found in the same subjects, taken by thirty-eight former Emerson School pupils who had progressed normally and had entered the junior high schools with the "A" and "B" groups. With the exception of drawing, the median marks of the gifted group were higher. In English, history, Latin, general science, and music, the marks were practically a unit mark higher. The total record of the normal group can be characterized as "almost good" scholarship. That of the gifted group as "very good." Hence, at the close of six months in the junior high schools, one year to one and a half years after the rapid progress-enrichment program had culminated, the pupils so experimented with were achieving better results than those who had been promoted regularly. Apparently, the junior high school teachers had not been able to find the special group lacking in preparation because of its exceptional experience.

A later and more extensive record was gathered. This latest information about the fifteen pupils was obtained in the summer of 1923, two and two and one half years after the respective "B" group and "A" group had entered the junior high schools. This date, therefore, concluded a period of three and a half years after the special class was disbanded. If the experiment had any ill effect on the pupils it would have become evident to the teachers or principals by this time. With this in mind, the writer prepared two questionnaire forms. One was to be filled out by the principal or school counsellor, and the other by the various teachers who instructed the pupils during the previous half year.

When the pupils had entered the junior high schools, in most instances, they had been placed in groups of fairly comparable ability. This classification had occurred on the basis of conferences between the sixth-grade teacher, the elementary school principal, the junior high school principal, and the junior high school counsellor. In these conferences the intelligence test records, the educational achievement test data, scholarship records, and teachers' judgments were utilized. Change from the division agreed upon at these meetings occurred in two of the three junior high schools only after the teachers in them agreed that it was wise to do so in the best interest of the pupil's progress. The records showed that few changes of this nature



were found necessary. The third school in another city had to modify the procedure because of many other problems arising within its school system. Throughout the seventh and eighth grades it was found possible to maintain fairly rigidly a system of classification in the other two schools.

Of the nine pupils who were in a class divided into four sections according to ability and achievement, eight were in the first section and one in the second. Of the four pupils who were in a class divided into five sections, one was in the first section and three in the second. Two of the four in second sections had been in first sections for one year, but in the judgment of the teachers, the pace was becoming too fast for these pupils. The two pupils, of the fifteen, not accounted for were in the junior high school in which the classes were not divided on the basis of scientific classification. Hence, where classification had been introduced and maintained, the gifted pupils were placed and remained in sections for superior students.

All fifteen pupils were enrolled in college preparatory courses and had signified, many times, their intention of going to college. The principal or school counsellor rated their attitudes towards school as follows: Excellent, 7; good, 6; satisfactory, none; fair, 2; and poor, none. In order to attempt to check the source of wrong attitude, the ratings were taken also with respect to their optimism, wholesome outlook, or pessimism. The pupils were distributed: optimistic, 4; wholesome, 10; and pessimistic, 1. In analyzing these judgments, it was found that one pupil rated "fair" in attitude toward school was also judged as having a wholesome attitude toward life. Only one was rated both "fair" and "pessimistic." This latter pupil was the one considered "out of his social group." The reason advanced was "does not make friends due to his disposition." Hence, with the one exception, the pupils' attitudes toward school were all that could be desired.

In response to the question, "Is there a sufficient number of pupils of his (or her) own age and physical development to constitute a satisfactory social group for him (or her)?" the principals and counsellors answered "Yes" in every case. To the question, "Is he (or she) a member of this group?" the response, "No," was given for only two of the pupils, and these were in different schools. The reason given for one girl was that she was "too individualistic." She was the girl also, who was considered as having only a "fair" attitude toward school. The boy

was the one cited above and the same reason repeated, "does not make friends due to his disposition." These two pupils had been in the same difficulty in the Emerson Elementary School, and hence, the special program had not helped them much in this respect. On the other hand, their thirteen fellows were members of their social groups. The groups were reported as sufficiently large to meet social needs in a satisfactory manner.

The scholarship records of these pupils during their years in the junior high schools were obtained and averaged for the various subjects which had been studied. The same five-point scholarship rating as listed above was used. All of the subjects except drawing had been carried throughout the two or two and a half years. Physical education was omitted because of the different system of marking. Manual training or domestic science marks were omitted for the same reason, and also because they were based on considerably limited time programs. The average marks of each pupil in each subject, with the exceptions stated above, are included in Table 5. The programs of W. O. and

TABLE 5—THE AVERAGE OF ALL SCHOOL MARKS MADE IN EACH SUBJECT BY THE GIFTED CHILDREN WHILE IN THE JUNIOR HIGH SCHOOLS OVER PERIODS OF TWO OR TWO AND A HALF YEARS

Pupil	Elapsed Time in Years	Average Mark Received in Each Junior High School Subject							
		English	Mathematics	History	Music	Foreign* Language	General Science	Drawing	Average Mark
S. G.	2½	2	2	1-	2	1-	.....	2-	2
R. A.	2½	2	2-	1	1-	.....	2+	2+	2+
B. S.	2½	2-	2	2	1-	2-	.....	2-	2
L. N.	2½	2+	2+	1	1-	1-	.....	2	1-
W. O.	2½	2	2	2	2+	3+	2-	2	2
K. M.	2½	2+	2	1-	1-	2+	.....	2+	2+
M. S.	2½	2+	1-	2+	1	1-	.....	1-	1-
F. L.	2½	2-	2-	2	2	3+	.....	2-	2-
M. W.	2½	2+	1-	2	2+	.....	1	2+	2+
B. S.	2	2-	2-	2-	2	2-	.....	2-	2-
M. M.	2	2	2-	2+	2+	2+	.....	2-	2
R. M.	2	2-	2	2	2	.....	2	2	2
N. W.	2	3+	3-	3	1-	3+	3+	2	2-
F. B.	2	1-	2	1-	1-	2-	.....	2+	2+
R. H.	2	2	1-	2	2+	1-	.....	2	2+
Average.....		2+	2	2+	1-	2**		2	2+

\* Including Latin.

\*\* General Science and Languages together.

N. W., who attended the same school, were so organized that they were enrolled in both general science and foreign language classes. The other thirteen pupils, enrolled in two other junior high schools, were required to select either Latin, French, Spanish, or general science and carry this one elective subject for at least two years.

In the table it is noticeable that N. W. averaged "3" in history. With this sole exception, all work of all pupils in all subjects was better than "satisfactory." The average for each pupil in all subjects combined was approximately "good" (2 —), or better. The average mark for all pupils in each subject was "2" (good), or higher. The grand average of all marks was "2 +." Hence, in no subject was the average record of any one pupil poorer than just "satisfactory." In fact, it was exceptionally high. Therefore, throughout their junior high-school careers to date, the pupils have not been handicapped in their scholarship because of their previous special class rapid adjustment and enrichment program. Better still, the classification in superior groups and maintenance of superior scholarship records has resulted in actual gain in high-school credits—that is, additional rapid progress. Eight pupils of group "A" have gained one extra year's credit in foreign language or general science in the two and a half years. One of the eight has also gained an extra year in English. Five pupils in group "B" are completing the same type of program, and by December, 1923, will have completed an extra year's work in foreign language or general science. The two exceptions in the total group are the boys attending the junior high school in which special classification of pupils did not exist.

The questionnaire placed in the hands of the teachers of these pupils constituted the final attempt to obtain data with respect to the effects of the experimental teaching program. The average of teacher's judgments with respect to the pupils' attitude towards school corresponded closely with that of the principals and school counsellor. These ratings were distributed: excellent, 9; good, 4; satisfactory, none; fair, 2; and poor, none. Using the same three-point scale as with the others, the teachers' ratings distributed the pupils as follows: optimistic, 2; wholesome, 12; and pessimistic, 1. The two pupils rated low by the administrative group were rated identically the same way by the teachers.

Four teachers (English, mathematics, history, and foreign language) were asked of each special class pupil, "What evidence

do you have that the pupil missed something of a fundamental nature because of a rapid progress program, which the average pupil has gained? Answer as much in detail as you can." In the case of one pupil, "immature written expression" was stated. In all other cases, no evidence was offered.

The same four teachers were asked: "What evidence have you of gains which have been made through rapid progress if you compare the pupil with other bright pupils of the same grade in school who have made only normal progress?" In all but two instances the reply was "None." The English teacher felt that it "had prevented idle habits" in one pupil. The history teacher recorded that she had observed a "more marked interest in civic affairs" in another. Strange to say, this pupil was the girl who had not been able to adjust herself to her social group.

The third question asked the four teachers was, "How does the pupil differ from the normal child in his class?" In eight cases, there was agreement that these pupils differed "in no way." All of the teachers agreed that the one girl mentioned above had developed "less concentration." Three considered one boy "conceited," while the fourth wrote, "He thinks so rapidly that he is hard to fathom." This was a pupil with a very high intelligence quotient, and, seemingly, was not understood. The rest were characterized by such terms as "more intelligent in his work," "more mature," "exceptionally reliable and conscientious."

From the teachers' answers to the above questions, it is evident that they had found practically no negative effects resulting from the special work of these gifted pupils while in the fifth grade. In fact, their judgments leaned towards the side of positive gain in development and scholarship.

*Gifted children enrolled in the rapid progress program*—In planning a reorganization of the school program from the third to the sixth grades inclusive, one of the items which the writer had in mind was that of definitely providing for the rapid progress of gifted children. Since a modified program of departmentalization was introduced, it was possible to include in it machinery for rapid progress instead of utilizing the old "skipping" method.

After a series of conferences and teachers' meetings the eight teachers in these eight half grades were assigned as follows: one each to specialize in, and instruct all of of these classes in, music, history, geography, or drawing. Hence, drawing from the low



third to high sixth grades inclusive, for instance, was to be taught by the one teacher in one room. Each of the four remaining teachers was to instruct two half grade classes in arithmetic, penmanship, reading, and physical culture. For example, one of the teachers taught the low and high fourth grade, at different hours in all these subjects. Two of the teachers were to specialize in third and fourth-grade children, carrying each class for two years. Then the pupils were to be promoted to the fifth-sixth grades cycle. Whichever of the two teachers received them was to teach them for the next two years. Each of the special teachers taught the children in her special subject for four years, providing even greater continuity of learning in it. Every teacher taught her own major class in language and spelling.

TABLE 6.—THE DAILY PROGRAM OF ONE OF THE TEACHERS OF THE THREE R'S

Time	Period	Low Fourth	High Fourth
9:00 to 9:55	1	Opening Exercise Language and Spelling	
Recess	2		
10:05 to 10:57	3	Arithmetic and Penmanship	
Recess	4		
11:07 to 12:00	5		Arithmetic and Penmanship
Lunch Hour	6		
1:00 to 1:55	7		Reading and Physical Culture
Recess	8		
2:05 to 3:00	9	Reading and Physical Culture	
	10		

Table 6 illustrates the schedule for one of the teachers of the three R's. It does not show, however, the elasticity permissible in distributing the time allotment for these subjects. Though language and spelling were assigned to the first fifty-five minute period, if the time allotment proved too great for the class needs the teacher felt at liberty to add some other study work or physical education according to its needs. If the time allotment proved too short, spelling or part of the language work could be moved to some other available hour in the day when this class was with the teacher. This held, also, for the necessary adjustment of the other traditional subjects in the program. The elasticity applied to all activities in these subjects except drill.

The drill lesson had to be given some time in the period to which the subject was assigned. This requirement eliminated the overlapping of drill periods in reading, spelling, language, arithmetic, and penmanship for any two consecutive classes. Thus provision was made for dealing with the articulation of subject matter in the interest of exceptional cases. For example, if a pupil was found to be weak in arithmetic, there was no longer reason for thinking that he should be held back in school. A doubling up of drill could be arranged for him until he straightened out his arithmetical difficulties. In so doing, he would temporarily miss a part of his class work in history, geography, drawing, or music, whichever one paralleled the time assignment for his class as against the traditional subject in the class above or below. This work in history, let us say by way of example, he could make up more readily. Thus he would be prevented from making a failure.

For this report, however, the application of this type of organization to the needs of gifted children is more important. This type of articulated program offered possibilities of rapid progress to gifted children. Instead of haphazardly skipping from one grade to the next higher and, consequently, meeting with uncertain drill in the subject matter of the work omitted, it was possible to provide for a gradual readjustment. Such pupils were designated as "visitors" in one or more periods of the class work in the grade higher than their own. As a visitor acquired proficiency in the higher grade, especially in the subjects of arithmetic, spelling, and language, he could gradually adjust to regular status in this upper class. Thus he could gain a half year in school by actually covering the school work more rapidly than normal. Such a program, therefore, provided means of adjusting gradually, but rapidly, gifted individuals or highly selected small groups of them, and without handicapping the normal pupils in any way. Also, it provided an opportunity for the gifted child to adjust himself in social groups rather than isolating him from his classmates.

How the daily program was organized, so as to make possible, rapid adjustment of gifted pupils by eliminating their subject weaknesses can be seen in Table 7. This table presents a typical daily program for three consecutive grades. Its operation for the regular or normal pupils in class is as follows. The low fourth and low fifth classes are with their respective major teachers during the first two periods for language, spelling, arithmetic, and penmanship. When they come in from the sec-

TABLE 7—THE TUESDAY PROGRAM OF THE LOW FOURTH, HIGH FOURTH, AND LOW FIFTH IN EMERSON SCHOOL, AUGUST, 1920, TO JANUARY, 1921

Time	Period	Low Fourth	High Fourth	Low Fifth
9:00 to 9:55	1	Open. Exercises Language and Spelling	Open. Exercises Music	Open. Exercises Language and Spelling
Recess	2		History	
10:05 to 10:57	3	Arithmetic and Penmanship	Geography	Arithmetic and Penmanship
Recess	4			
11:07 to 12:00	5	Drawing	Arithmetic and Penmanship	Geography
Lunch Hour	6			
1:00 to 1:55	7	Music	Reading and Phys. Educ.	History
Recess	8	History		Music
2:05 to 3:00	9	Reading and Phys. Educ.	Language and Spelling	Reading and Phys. Educ.
	10			

and recess the low fourth goes directly to the drawing teacher's room. On alternate days this assignment is reversed. Immediately after the major teachers have checked attendance for the afternoon sessions, the low fourth pupils go to the music teacher while the low fifth go to the history teacher. In the middle of the period, these teachers exchange classes. When the afternoon recess is over, the two classes return to their respective major teachers for physical culture and reading. Meanwhile, the high fourth grade is following the day's program outlined in the same table.<sup>1</sup>

*The case of E. G.*—Just as the normally progressing pupil made practically all class changes during recess periods so could the gifted child make rapid progress. The following case will illustrate the organization in operation meeting his needs, or that of a small similar type of group. In January, 1920, E. G. was promoted to the high fourth grade. Previous to this date, he had been advanced regularly each term for three and a half years. He was rated by the teacher promoting him as being very superior in general intelligence. An analysis and evaluation of his scholarship record indicated that teachers had always con-

<sup>1</sup> Teacher assignment, programs, and pupil programs are treated in detail in Chapter VII of George C. Kyte's *Reorganization and Administration of an Elementary School to Meet the Needs of a Community*.

sidered him as almost excellent in scholarship. Chronologically, he had reached the age of nine years and two months. Therefore, he was at age for his grade. On the Otis Group Intelligence Scale (Oakland Revision), he scored 68 and on Army Alpha, 85. These scores transmuted into mental ages and their average found, disclosed that he had a mental age of at least fourteen years and seven months. Therefore, his intelligence quotient was approximately 159. His father was a successful attorney; the mother had graduated from high school; older brothers and sisters had achieved high scholarship in schools and university. The boy was healthy and had rarely missed a day in school.

He was placed in a small special group of gifted children, which were immediately transferred from the beginning high fourth major class to the low fifth one. He remained with the low fourth grade in arithmetic and penmanship, temporarily missing drawing and geography. The reasons for this program were explained to him. The geography teacher also recommended to him certain geographical material to study during his silent reading period so that he could keep up with the fifth grade class in this subject. After four weeks had elapsed the two teachers under whom he was studying arithmetic agreed that he was thoroughly able to do the regular fifth grade class work and no longer needed the high fourth grade drill. By June, he and the others of his special group had made the necessary special adjustments and completed all of the work of the high fourth and low fifth grades. The judgments of the teachers were substantiated by means of educational achievement tests. For example, on the seventy-three per cent list on the Ayres Spelling Scale for finishing fifth grade, E. G. scored 100 per cent. On Starch's Arithmetical Reasoning Scale A, he scored 11; this score equals finishing seventh grade standard. His achievement on the Monroe Silent Reading Test was: rate, 98; comprehension, 21.2. The respective finishing fifth grade standards, 89 and 19. In the Ayres Penmanship test, using the "Gettysburg edition," E. G. was found to be below standard. His handwriting speed was 38 and quality, 45. Since finishing fifth grade standards are 64 and 50 respectively, even for the high fifth grade to which he was promoted his speed was under developed. In fact, his class average of 48 in speed indicates how deficient he was in rate of writing. However, in all other subjects he had achieved learning in them far beyond most of the pupils.

From August, 1920, to January, 1921—that is, during the next term—he advanced with the high fifth grade. His attitude to-



wards school was excellent. However, during this period, several teachers noticed a feeling of restlessness and self-restraint in the boy. They felt that unconsciously he realized his own possible rate of progress because of his previous experience. As the term closed, they reported him as leading his class and recommended that he be placed on a "visitor" basis in the new high sixth grade. He was moved to this class accordingly in all subjects except drawing and geography. These were omitted temporarily while he was taking low fifth grade arithmetic and penmanship. At the end of two months, he was able to drop this low sixth grade work and, through his remarkable reading ability, rapidly made up his geography. In June, he was promoted to the seventh grade. A battery of standardized educational tests was given to his class at the close of the sixth-grade term. In them he achieved as remarkable a record as he had done the year before. In spelling, arithmetical reasoning, geography, and silent reading he surpassed finishing seventh grade standards. On the 73 per cent Ayres Spelling list for finishing sixth grade, he scored 94 per cent; Starch Arithmetical Reasoning Scale A, 13; Monroe Silent Reading Test II, rate 146, and comprehension, 39.8; Whittier Geography Scale A, 86. However, in penmanship his speed was still below standard and quality barely up to it—handwriting, speed 56; quality, 50.

Reports of his first half year in the junior high school showed that he was achieving better than good work in the highest division of his class—for pupils of superior ability and attainment. His attitude towards school was rated by his major teacher as being "a most wholesome one."

This example has been developed in considerable detail, not only because it illustrates the method of selecting gifted children and moving them rapidly through the school, and class organization which made this possible, but also because the boy is one of the group of gifted children with which this second study deals.

*The case of M. M.*—Pupil M. M., who is also in the group reported in this study, had made rapid progress in the second grade, but from then on until she reached the high fifth grade her progress had been normal. As her low fifth grade term was ending, she was recommended by her teachers for rapid progress. They rated her as superior in intelligence, up with the best students in her class in everything except written expression, and one of the most earnest students in the group. Her scholarship

record had been almost excellent throughout her previous school career. She enjoyed exceptionally good health. For several years she had never been absent from school. Her parents were university graduates, the father being a successful physician. She was given an individual intelligence test, and her intelligence quotient was found to be 130.

When the new term began she was moved into the low sixth grade in all subjects except history, music, language, and spelling. She was out of the history and music periods temporarily while she was getting the high fifth grade drill in arithmetic. She was in the high fifth language and spelling class, also. All of her weaknesses and her arithmetic needs were pointed out to her so that in the study periods she could stress them. The teachers planned for her special drills to meet these difficulties. Within a few weeks she was taken out of the fifth-grade arithmetic period and joined the low sixth grade class in its music and history.

By the middle of the term she had brought up her language work to achievement equivalent to the average pupil of the low sixth. Therefore, she was moved into the low sixth class as a regular student. At the end of the term she was promoted to the high sixth grade. Her scores on several educational achievement tests indicate how exceptionally fine her record was. Ayres Spelling 73 per cent list for finishing sixth grade, 92 per cent; Starch Arithmetical Reasoning Scale A, 11; Monroe Silent Reading—rate, 133, and comprehension, 31; Whittier Geography Scale A, 83; and Ayres Penmanship Scale—speed, 76, and quality, 60. She continued to be a good student, with a fine attitude towards her school and her classmates. She became popular with the high sixth-grade girls. In the junior high school she was placed in the strongest group of superior pupils and achieved a record of approximately excellent scholarship term after term. She, also, is one of the pupils listed in this report.

*A third-grade group*—Another type of rapid progress program in which other members of the group were accelerated as individuals or in small groups is as follows: In January, 1920, the enrolment in the high third grade was thirty-three. An investigation of the progress of these pupils indicated that during the previous two and one half years few of the children had been moved more rapidly than the normal rate. Only three pupils had been accelerated and seven retarded. While this class was still in the low third the teacher rated the pupils with respect to

their general intelligence. The scholarship records were also evaluated. Before her judgment was taken she carefully studied the seven-point scale which she was to use for the basis of her judgment. After making the rating with respect to general intelligence, she used the same scale for rating the pupils with respect to their achievements in reading, language, arithmetic, and spelling. Whether or not her judgment of the pupils with respect to their achievement was greatly tempered by her rating of their intelligence could not be determined. However, there was such a marked agreement in the ratings that the latter type contributed almost nothing more than was obtained from the rating of general intelligence. As rapidly as possible the upper 50 per cent of the class was tested individually.

TABLE 8—THE SPECIAL HIGH THIRD-LOW FOURTH GRADE GROUP

Pupil	Sex	Chron. Age	General Intel. Teach. Judg.	I. Q.	Schol. Record	Record for term ending June, 1920			
						Ayres 73% Sp.	Starch Arith. Reas.	Monroe Reading	
								Rate	Compr.
1	G	6-4	1	148	1	100	6	absent	
2	G	8-5	1	136	1	100	6	67	10.6
3	G	8-2	1	137	2	100	9	87	8.5
4	G	9-0	1	115	2	100	absent	54	9.9
5	G	9-10	1	113	1	100	7	87	17.1
6	G	8-4	1	115	1	100	7	absent	
7	B	8-7	1	151	1	100	10	127	20.1
8	G	8-8	1	111	2	100	8	87	17.1
9	G	8-6	1	107	2	95	7	59	8.6
10	G	8-1	1	121	1	100	6	127	20.1
11	G	8-5	1	117	1	100	7	76	16
Standard for High Fourth Grade.....						73	6.2	73	13

The class was divided into three sections for work in the three R's especially. The first section was given an opportunity to progress more rapidly than the normal group. Table 8 contains the records of the eleven pupils in the highest division. Three of these children were under age for the high third grade to which they were promoted, while on the other hand two were over age. The eleven pupils together with two others were rated as very superior in general intelligence while in their scholarship their achievement had been superior or better. The intelligence quotients ranged from 107 to 151, the median being 117.

During the term these children completed the high third and low fourth grade work. In the table the achievement of this group in standard tests in arithmetic, spelling, and silent reading

has been included. These tests indicate how thoroughly satisfactory was the work of this group. Twenty words from the Ayres list were used to test the class in June, 1920. The standard for the finishing high fourth grade on this list was 73 per cent. The ten perfect papers and the eleventh one with a score of 95 per cent indicate how this group of children had mastered spelling even to the point of being so satisfactory that the test for a higher grade did not measure their achievement. In the Starch Reasoning Tests in Arithmetic the ten children who were present when the test was given approximately reached the standard for finishing high fourth or exceeded it. The nine pupils who were present when the Monroe Standardized Silent Reading Test, Form I, was given achieved results better than finishing third grade standards, and with two exceptions, better than finishing fourth grade in rate and comprehension. The teachers found during the term that the children demanded a slightly enriched program as well as a rapid progress one. Apparently, time that they were gaining was time in reality that had been lost previously. Their mentality, therefore, asserted itself and determined a pace which was really the more normal one for the group.

The above examples illustrate adequately how the departmentalized program operated as a means of accelerating gifted children either as individuals or in small groups. The pupils were carefully selected and studied. Special programs were planned to meet their individual needs and at the same time provided an organization in which the pupil was a member of a class—a large natural social unit. The diagnosis of weaknesses was explained to him so that he could make adequate preparation to insure all-round growth. Scientific checks were used together with teachers' judgments in determining what progress had been made. These standardized educational tests also proved to be safeguards in the interest of the children experimented upon. What were the results of this rapid progress program?

*Progress made in junior high*—In order to answer this question, the progress and achievement of the pupils were carefully followed after they had entered the junior high schools. In concluding the study, specified information about these children was requested from the junior high school principal or his school counsellor and the teachers who had instructed these pupils during the half year ended in June, 1923. Complete returns were obtained for twenty-eight of these pupils. Table 9 contains the essential data about them and their progress in the Emerson



TABLE 9—DATA WITH RESPECT TO THE TWENTY-EIGHT GIFTED CHILDREN UPON ENTRANCE INTO THE JUNIOR HIGH SCHOOLS, AND TERMS OF WORK COMPLETED WHEN SCHOOLS CLOSED IN JUNE, 1923

Pupil	Sex	Intel. Quotient	Scholarship Record	Chron. Age	Age Grade Distribution	Each Grade Completed in a Half Year	Years Gained	J.H.S. Terms Completed
D. A.	G	148	1	9-4	Under age	1, 3, 4	1½	1
P. H.	B	113*	2	11-10	At age	3, 5	1	1
E. B.	G	134	1	11-5	Under age	2, 4	1	1
A. H.	B	114*	1	11-6	Under age	2, 4	1	1
W. W.	B	126	1	10-9	Under age	1, 4	1	1
D. M.	G	111*	2	11-11	At age	2, 3	1	1
B. B.	G	123	1	11-2	Under age	1, 4	1	1
R. M.	B	120	1	11-2	Under age	1, 2, 4, 5	2	2
W. T.	B	159	1	10-4	Under age	4, 5, 6	1½	2
R. D.	G	130	1	11-3	Under age	2, 5	1	2
E. K.	G	133	2	11-7	Under age	3, 5	1	2
D. J.	G	124*	1	10-2	Under age	2, 4	1	3
D. C.	B	162	2	9-7	Under age	2, 4, 6	1½	3
W. D.	B	117	2	11-3	Under age	4	½	3
O. Y.	B	125	2	11-1	Under age	4, 6	1	3
M. G.	G	142	1	10-9	Under age	2, 4, 6	1½	4
H. B.	B	148*	1	11	Under age	3, 5	1	4
M. W.	G	133	1	11-1	Under age	3, 6	1	4
W. M.	B	158	1	10-4	Under age	2, 3, 6	1½	4
E. G.	B	159	1	11-4	Under age	4, 5	1	4
A. H.	G	131	2	11-11	At age	5	½	5
C. G.	G	136	1	11-4	Under age	2, 5	1	5
M. M.	G	130	1	10-10	Under age	2, 5	1	5
M. L.	G	122*	1	11-9	At age	5	½	5
M. D.	G	124	1	10-10	Under age	1, 2, 6	1½	6
M. B.	G	150	1	11-4	Under age	3, 6	1	6
C. P.	G	136	1	11-3	Under age	2, 6	1	6
G. Y.	G	138	1	11	Under age	1, 5	1	6

\* G. I. Q.'s obtained by averaging those obtained on two or more group intelligence tests. Otis G. I. Scale, Army Alpha, National I Tests and German Group I Tests were only ones used.

Elementary School, together with age-grade distribution upon entrance in the junior high schools and the length of time they have attended them.

In the group are eleven boys and seventeen girls. The range of intelligence quotients of these twenty-eight pupils is from 111 to 162, inclusive. They completed a year's work in one half year in some one of their last four years in which their readiness for rapid progress had become apparent. In some cases, pupils had

made this type of adjustment twice in this group of grades. In addition, seventeen of the pupils had made rapid progress in one or two grades before they had reached the third grade. The time saved these pupils in the elementary school ranged from one half year to two years. In spite of their rapid progress, seven of the pupils had maintained a scholarship record of "2," "Superior," and the other twenty-one, a record of "1," "Very Superior," in the elementary grade.

When they entered the junior high schools, in the low seventh grade, their chronological ages ranged from nine years, four months, to eleven years, eleven months. According to the Strayer-Engelhardt normal age limits for entering the seventh grade<sup>1</sup> "eleven years, nine months, up to twelve years, nine months"—twenty-four of the pupils entered under age for this grade, one was barely at age, and the other four were slightly older than the minimal limit. When compared with the average entering seventh-grade pupil—twelve years, one month—the oldest ones in the group are under age.<sup>2</sup>

Since these older pupils were gifted children, young in comparison with the average, in two cases had gained one year, and since they constituted only a small number of the whole group, they were included in the study. The final column indicates the length of time the pupils have been in the junior high schools. All completed at least a half-year of residence by June, 1923, while the first group to enter completed the three-year period.

TABLE 10—DISTRIBUTION OF THE INTELLIGENCE QUOTIENTS OF THE TWENTY-EIGHT ACCELERATED GIFTED CHILDREN AND CLASSIFICATION OF THEM ACCORDING TO TERMAN'S SUGGESTED GROUPINGS

Intelligence Quotients	Number of Pupils	The Terman Classification
160-170	1)	"Near" genius or genius.
150-160	4)	
140-150	3)	
130-140	9)	Very superior intelligence.
120-130	7)	
110-120	4)	
90-110	.....	Superior intelligence.
80-90	.....	Normal, or average, intelligence.
70-80	.....	Dullness, rarely classifiable as feeble-mindedness.
Below 70	.....	Border-line deficiency, sometimes classifiable as dullness, often as feeble-mindedness.
		Definite feeble-mindedness.
Total.....	28 28	

<sup>1</sup> Strayer and Engelhardt: *The Classroom Teacher*, p. 127.

<sup>2</sup> Morgan: *Spelling Age Computed from the Score on Fifty Per Cent Lists*. Table II, *Journal of Ed. Research*, VII, 237.

Table 10 contains the distribution of the intelligence quotients and the significance according to Professor Terman's classification.<sup>1</sup> How highly selected the group of gifted children were can be appreciated from the fact that all but four pupils have intelligence quotients of 120 and higher. In terms of the classification, eight are genius or near-genius types; sixteen, very superior; and four, superior. The four lower types of mentality are not found in the group.

The distribution of time gained in the elementary school is contained in Table 11. Three of the pupils had saved one half

TABLE 11.—THE TIME GAINED BY THE PUPILS THROUGH RAPID PROGRESS IN THE EMERSON ELEMENTARY SCHOOL

Years Gained	Number of Pupils
2	1
1½	6
1	18
½	3

Average gain in years..... 1.34

year; eighteen, a year; six, one and a half years, and one, two years. One of the three gaining a half-year became an under-age pupil because of the gain. The pupil gaining two years, had entered the elementary school over age, and finished under age. The time saved by the average pupil was 1.34 years.

From the junior high schools were obtained the scholarship record and the additional data from principals and teachers as was requested in the investigation of the rapid progress and enrichment group. The scholarship record of the twenty-eight pupils at the close of their first half year is contained in Table 12. The order of pupils is the same as that in Table 9, so that the reader can make any additional comparisons he desires. The teachers' marks are the same as those explained above.

Of all the marks given, only one is below "3," "satisfactory." This was the conditional "3—" received by W. M. in drawing. It reduced his average mark from "2+" to "2." A. H. was the only pupil rated below "2" in English. Only three pupils rated lower than this mark in mathematics, but none dropped to "3," "satisfactory." Five pupils received marks of "3" or "3+" in history and only two, in music. In Latin, Spanish, or French only two

<sup>1</sup> Terman, Lewis. *The Measurement of Intelligence*, pp. 65-67.

TABLE 12—THE SCHOLARSHIP RECORD OF THE TWENTY-EIGHT ACCELERATED GIFTED CHILDREN AT THE CLOSE OF THEIR FIRST TERM IN THE JUNIOR HIGH SCHOOLS

Pupil	Ratings Received in Junior High School Subjects							
	English	Mathematics	History	Music	Languages	General Science	Drawing	Average
D. A.	1—	1—	2+	1	2+	.....	2	1—
P. H.	2	2	1—	3+	2—	.....	2+	2
E. B.	2	1	2	1—	2	.....	2+	2+
A. H.	3	2	2	2	.....	2	.....	2
W. W.	1	1	2	2	1	3	.....	2+
D. M.	2+	2	3+	1	.....	1—	1	2+
B. B.	2+	2+	2—	1—	2+	.....	2+	2+
R. M.	1	1—	1—	2	1	.....	1	1—
W. T.	2	1—	2+	2—	2+	.....	.....	2+
R. D.	2+	1—	1—	1—	1—	.....	1—	1—
E. K.	2—	2	3	2+	.....	2+	1—	2
D. J.	2	2	3+	2	.....	2	1—	2
D. C.	2	2	2	3	3	3	.....	2—
W. D.	1	2	1	2	2	2	.....	2+
O. Y.	2	1—	2	2	2	.....	2	2
M. G.	2+	2—	1—	1	2	.....	2	2+
H. B.	2	2	1—	2	2	.....	3	2
M. W.	1	2+	1	2	1	.....	2+	1—
W. M.	1—	2	1—	2	2	.....	3—	2
E. G.	2—	2+	2—	1—	3	.....	3+	2—
A. H.	2—	3+	3	2+	2—	.....	2	2—
C. G.	2	3+	3	1—	2—	.....	2+	2—
M. M.	1—	2	1—	1	1	.....	2	1—
M. L.	2	2	2	2	2+	.....	1—	2
M. D.	2	2+	1	1—	2+	.....	.....	1—
M. B.	1—	1	1	1	1	.....	1—	1
C. P.	1	2	1	2	2	.....	.....	2+
G. Y.	2+	1—	2—	2+	2+	.....	2—	2+
Median...2		2	2+	2+	2+	2	2+	2+
Median for Normal Progress Pupils....2—		2—	3	2	2—	3	2—	3+

\* Languages include Latin, French, and Spanish.

pupils were graded "3," while three were graded "3+," "3," and "3—" respectively, in drawing. No pupil averaged below "2—" for all marks combined. In fact, only four pupils fell to this mark of "almost good." Since seven others average "2," about sixty-one per cent of the pupils were achieving "very good" scholarship or better. R. M., two years accelerated, has an average of "1—"; the six pupils who gained one and a half years, average "2+"; the eighteen who gained one year between "2+" and "2"; while the three advanced a half year, average "2." Hence, the greater the acceleration, the higher the average tends



to be for this group. A comparison of the median records of these gifted children with those of the thirty-eight pupils making normal progress, cited above, discloses that the former achieved better results in every subject. This result would seem to indicate that the accelerated gifted children had at least not missed any fundamental learning in making rapid progress.

The average scholarship record for the twenty-one pupils who have completed a year or more in residence in the junior high

TABLE 13—THE AVERAGES OF ALL SCHOOL MARKS MADE IN EACH SUBJECT BY THE TWENTY-ONE ACCELERATED GIFTED CHILDREN IN RESIDENCE IN THE JUNIOR HIGH SCHOOLS FOR ONE OR MORE YEARS

Pupil	Years of Residence	Average Standing Received in Each Subject in the Junior High School							
		English	Mathematics	History	Music	Foreign* Language	General Science	Drawing	Average Mark
R. M.	1	1—	1—	1—	2	1—	.....	1	1—
W. T.	1	2+	1—	1—	2—	1—	.....	.....	2+
R. D.	1	2+	2+	1—	1—	1—	.....	1—	1—
E. K.	1	2—	2	3	3	2+	.....	1—	2
D. J.	1½	2	2	2+	1—	2	.....	2+	2+
D. C.	1½	2	2+	2+	1—	3	2—	2—	2
W. D.	1½	1	2—	1—	2	2—	2+	2+	2
O. Y.	1½	2+	1—	2	2+	2	.....	2	2+
M. G.	2	2+	2	1	2+	2+	.....	2	2+
H. B.	2	2	2+	1—	2+	2	.....	3	2+
M. W.	2	1—	1—	1	2+	1—	.....	1—	1—
W. M.	2	2+	2	1—	2—	.....	2+	3	2
E. G.	2	2—	3+	2+	2+	3	.....	2—	2—
A. H.	2½	2—	3+	3+	1—	2—	.....	2+	2
C. G.	2½	2	2+	2+	1	2—	.....	1—	2
M. M.	2½	1—	1—	1—	1	1—	.....	1—	1—
M. L.	2½	2+	2	2+	1—	2+	.....	1—	2+
M. D.	3	2+	2+	1—	1	2	.....	2+	2+
M. B.	3	1—	1—	1—	1	1—	.....	2+	1—
C. P.	3	1	2	1	2	2	.....	.....	2+
G. Y.	3	2+	1—	2	1—	1—	.....	2—	2+
Median.	.....	2+	2+	1—	1—	2+	.....	2+	2+

\* Includes Latin, French, and Spanish languages.

schools is contained in Table 13. In the second column the length of residence to June, 1923, is indicated.

In very few instances have pupils averaged as low as "3," "satisfactory," in a subject. Only one pupil has a grand average of "2—," *i. e.*, "almost good." Sixty-seven per cent of the pupils have achieved averages of "2+," "very good," or better. In every subject, the median mark is "2+" or higher. Apparently, the pupils high records indicate that individually and collectively,

they missed no fundamental work through acceleration in the Elementary School. In fact, the record cards of the twenty-one pupils with a year or more of residence in junior high schools disclose that rapid progress is continuing in a marked degree. Eighteen of the pupils have been attending junior high schools which provided opportunities for superior children through classification of all pupils on the basis of intelligence and achievement. Ten out of eleven pupils are in foreign language sections so far advanced as to be assured of gaining an extra year's credit in this subject by December, 1923. There is a bare possibility that the other child may make the same gain. Of the other seven pupils in these junior high schools, six have gained a year's credit in foreign language, and one has gained two year's credit. Two out of the three attending the junior high school providing for sections of enrichment rather than rapid progress are in this type of section.

TABLE 14—DISTRIBUTION OF THE PUPILS IN THE CLASSIFIED GROUPS IN THE JUNIOR HIGH SCHOOLS

Number of Divisions Provided	Distribution of Pupils in Divisions Provided						
	First	Second	Third	Fourth	Fifth	Unclassified	Total
5	5	1*	.....	.....	.....	.....	6
4	12	6	1	.....	.....	.....	19
3	1	1**	.....	.....	.....	.....	2
2	.....	.....	.....	.....	.....	.....	.....
1	.....	.....	.....	.....	.....	.....	.....
Unclassified	.....	.....	.....	.....	.....	1	1
Total.....	18	8	1	.....	.....	1	28

\* In the first section for over a year until absent a long time on account of a contagious sickness.

\*\* Elected to drop into section 2 from section 1 in order to take an extra foreign language course.

Table 14 indicates how the twenty-eight pupils were distributed in classified groups during the term ending May, 1923. Only one pupil was in an unclassified group.

The table shows that eighteen of the twenty-seven classified are in first sections. Two others might well be classified in these groups, an exceptionally heavy program of one and illness of the other resulting in their being placed in second sections. Only one pupil is in a section for normal pupils. She is one of the pupils who had gained only a half year in the Emerson Elementary School, also. All of the other twenty-seven are in groups of

superior intelligence and achievement. Therefore, they have no apparent handicaps in their school work through rapid progress.

All of the pupils are enrolled in college preparatory courses. The principals and school counsellor report that all express their intention "to go to college." In response to the question: "What evidence do you have that he (she) missed something of a fundamental nature because of a rapid progress program he (she) experienced in the (specified) grades?" The reply in every individual case was, "None." This corroborated the inference drawn from the scholarship and progress records of these pupils, that no subject matter of a fundamental nature had been omitted.

The principals rated the pupils with respect to their attitude toward school. They were distributed as follows: "excellent," 20; "good," 6; "satisfactory," 2; "fair," none; and "poor," none. The pupils' attitude toward life rated on a three-point scale were: "optimistic," 11; "wholesome," 17; "pessimistic," none. The ratings by the teachers on the same scales correspond very closely to those of the principals. However, one pupil was rated "fair" in attitude toward school. This same pupil was rated by the teachers as having a wholesome attitude toward life; while the principal rated her "good" and "wholesome." Even continuing to rate this pupil on the one basis of "fair" instead of the three other judgments the record of the group is a remarkable one. Rapid progress had not spoiled these children's attitude toward school; probably the preponderance of "excellent" attitudes was an outcome of it.

In response to the questions, "Does he (she) seem out of his social group? If so, in what way?" in but two cases were responses of "Yes" received. The explanations advanced were "physical makeup" and "shy, diffident," respectively. In the latter case only was a negative answer received to either one or both of the following questions: "Is there a sufficient number of pupils of his (her) own age and physical development to constitute a satisfactory social group for him (her)?" and "Is he (she) a member of this group?" These sole two "no's" were explained by "Too young" after the question "If so, why?" This pupil, D. C., was the second youngest in the group. He happened to be rather small for his age and, therefore, his youth apparently stood out in contrast to others not much older than he but with greater physical growth. It would seem, therefore, that in this one case, the acceleration of three terms was too much for this pupil to make the necessary adjustments to social groups. However, if twenty-seven out of the twenty-eight accelerated pupils

are members of social groups, and such groups are reported as sufficiently large, apparently rapid progress programs not of an extreme nature (no pupil having been pushed to the limits of his mental capacity) were not injurious to them as social beings. The pupil who is a member of his group but seems out of it because of shyness is a type which is found in older pupils making normal progress. Whether or not normal progress would have removed this handicap is debatable therefore.

From the questionnaires answered by the teachers, additional data was obtained. In reply to the question, "What evidence do you have that the pupil missed something of a fundamental nature because of a rapid progress program which the average child has gained? (Answer as much in detail as you can)," for twenty-four of the pupils, the mathematics, English, social studies, and foreign or classical language teachers answered "None." An English teacher reported one pupil "poor in spelling," and a second, "dearth of ideas." One mathematics teacher reported one pupil as "uneven," and another, a fourth pupil, as "lacking thoroughness." Hence, if only one specific case was found by a teacher out of twenty-eight pupils in four different subjects, apparently nothing of a fundamental nature had been omitted by rapid progress, which was affecting these pupils in their school work one or more years afterward.

"What evidence have you of gains which have been made through rapid progress if you compare the pupil with other bright pupils of the same grade in school who have not made rapid progress?" In answer to this question the teachers in the same four groups of subjects reported, "None" as follows for the twenty-eight pupils: mathematics, 25; English, 25; language, 16 (8 not enrolled in the last type of class). The comments differing from this were as follows: "adjusts more readily," "has gained in confidence," "stronger pupil," "very marked ability," "more dependable and serious," "has higher ideals." Therefore, if there is any difference to be found in bright pupils who have been accelerated and bright ones who have not, the gain is on the side of the former.

The third question asked was, "How does the pupil differ from the normal child in his class?" In seventeen of the twenty-eight cases, the four teachers agreed that the accelerated gifted children differed "in no way" from the normal children in their classes. Three of the teachers reported one child "diffident." It was the same child so reported by the principal. One pupil was reported by one teacher as "immature." He was the same pupil



as rated "too young" by the principal. In fact, the reactions were identical. One other pupil was rated by one teacher as "supersensitive," while a fourth was reported by another teacher as "lacking confidence." In these last two cases, however, three teachers reported "differed in no way." The other seven pupils seemed to be more striking to two or more teachers. The comments included such terms as "very mature," "rapid learner," "more studious," "scholarly attitude," "marked readiness," "more originality," "better vocabulary," and "noticeably superior." Therefore, these pupils were, apparently, more mature than the normal children in the same grade. Hence, in comparison with this type of child, the accelerated gifted children had made superior development, were more mature, if any general difference is to be considered evident to the teachers.

The findings, therefore, were very similar to those obtained in the investigation of the group of pupils who had been enrolled in a rapid progress and enrichment program. Hence, the conclusions may be summarized for both groups.

*Findings*—The investigation indicates for the forty-three gifted pupils that if they are moderately accelerated in the elementary schools, with or without enrichment of programs, they adjust readily in the junior high schools, achieving scholarship records superior to those who have not been accelerated.

The accelerated gifted pupils continue to make rapid progress in the junior high schools when given an opportunity to do so, and maintain a very high scholarship record at the same time.

These gifted children have superior attitudes toward school and life and, apparently, have gained, rather than lost, poise through their achievements.

According to the reports of the principals, these pupils find social groups in the junior high school which are sufficient to meet their needs, and they become members of these groups.

Every type of evidence, including school marks, principal's judgments, and various special teachers' judgments, seems to indicate that the pupils had omitted from their training no subject matter essential to continuation of their work in their junior high school classes.

In comparison with children in their own classes, whether the bright or the normal children who have made normal progress only, the accelerated gifted child seems to have gained in the eyes of the junior high-school teachers, if any difference is to be reported at all.

From the above summaries it would appear that carefully planned programs for the selection and education of gifted children, providing for moderately rapid progress, with or without increased enrichment, result in marked gains for these children and no appreciable losses.

## WHAT IS THE INTERMEDIATE PROBLEM AND HOW SHOULD IT BE MET?

C. H. PORTER

*Principal of Washington School, Cincinnati, Ohio*

THE relative merits of different forms of school organization have been receiving the consideration of educational thinkers for a number of years. It is hardly necessary for the purpose of this article to review the history of the origin or development of this question. It came as many other educational questions come, a cumulative outgrowth from the thrashing out and winnowing of other educational problems that had preceded it.

Among the big questions that had gone before, that primarily gave origin and tremendous importance to a consideration of the question of school organization, was the one of The Adolescent Period of Child Growth. The question briefly stated is that from the age of twelve to fifteen years, the child takes on a new growth, at which time there are readjustments of bodily tissues and bodily functions, which seriously affect his mental and physical life at a critical time when the school has to deal with him—the time when the elementary school has accomplished its work, and when a transfer must be made in order to meet his future needs.

The consideration of this matter brought us to face the fact, that existing courses of study and school organization do not take the above and many other related questions into account. As a possible solution of this problem, the idea of the so-called junior high school was conceived. It was presumed that this organization would take the child in the seventh grade, or at about the age of twelve, and by providing him with a varied course of study, both vocational and academic in character, to carry him over through the eighth and ninth grades, through a process of varied experiences and training, that would appeal to

his interests, which would enable him to find himself. At least it was hoped that the scheme would reveal his abilities and capabilities sufficiently to enable the school to give wise direction to his future education or career.

The Junior High School has been receiving and still is being given first consideration by many educational thinkers and institutions of learning throughout the land. The reasonableness of the idea has impressed administrative authorities sufficiently to go ahead and try it out. Junior high schools have been established more or less liberally in almost every city of the country. The experimentations that have been given the idea, by providing for it special types of buildings and extensive and expensive mechanical and physical equipment, should have given us sufficient data by this time, for us to give it an undisputed place in our educational scheme.

But has the junior high school advanced beyond the stage of theory? Does it do for the boys and girls what we hoped it would do? Does it help them to find themselves either in their future educational careers, or in the world of occupation when they quit school? Are they any better able to take their places in the complex industrial and social world of which many of them will soon become a part? Is it keeping them in school any longer? If it has done, or is doing any or all of these things, why have we not been given the proof of any of the experiments that have been, or are being made, with the idea? These are measurable facts, and we should have results for an answer, not an "I think."

Dr. Briggs, of Columbia University, is quoted as having said in a concluding address to one of his classes on Organization and Administration of the Junior High School: "The junior high school has as yet its foundation in theory. Only as we make proper use of surveys, psychological tests, and scientific studies, can we hope to have these theories sustained. The final verdict for the junior high school rests with the results of such retrospective measures."

In keeping with the above statement, the present study was made for the purpose of finding out if possible just what our educational problem is, and to discover what relation it bears to our present school organization, and what adjustments should be made to meet conditions that might be revealed.

In making this study, information was taken from the following Vocational Inquiry Card, which is similar in many respects to the card used by Dr. McCracken, but was handled in a different way.

VOCATIONAL INQUIRY CARD

Name..... School.....  
Last Name First Name

Age, years..... Months..... Grade..... Date, Jan.....1922

What do you wish to do to earn a living when you quit school?..  
.....

Put a cross under the grade you expect to finish. Occupation of Father.....

7	8
9	10
11	12

Occupation of Brother 1.....  
if employed 2.....  
3.....

Occupation of Mother.....  
if employed  
“ of Sister.....  
if employed

Do you expect to go to school after you finish High School?.....  
WASHINGTON SCHOOL PRESS

This inquiry was given to the boys and girls of the sixth, seventh, and eighth grades of twelve contiguous schools, comprising a cosmopolitan district of Cincinnati. Five of these schools are distinctly residential, six of them have a few factories located within their borders, and one, the Washington School, is in distinctly a factory community. None of them are within the limits of the downtown district.

That the information might be as reliable as possible, the principal of each school told his classes several days before the cards were placed in the hands of the children, that in a few days they would be given a card on which they would be asked to answer some questions; that there would be two questions which they wanted them to be thinking about and to talk over seriously with their parents. One of the questions would be, What grade do you expect to finish before you quit school? The other question they wanted them to be thinking about would be, What kind of work or occupation do you think you would like to follow to earn a living when you quit school? The cards were given to the classes by the principal of each school, and the children's answers were



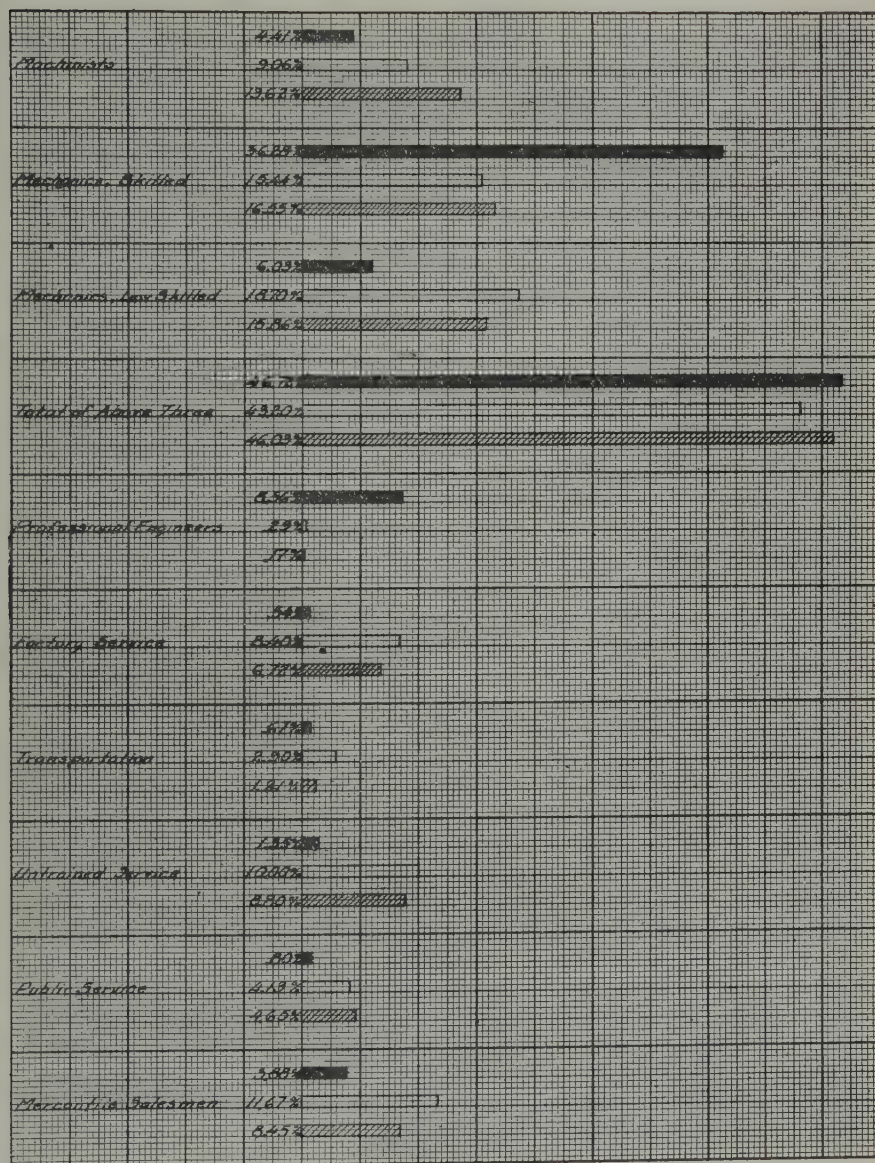


FIG. 1—Occupational analysis as shown by the preference of the boys of the sixth, seventh, and eighth grades, and by the occupations of the fathers and brothers of the sixth, seventh, and eighth grade boys and girls in twelve contiguous schools.

taken without suggestion from anyone, other than what they may have received from their parents.

The following analysis was used in making a summary of the occupational preference of all the boys, and the occupations of the fathers and brothers of both boys and girls. This has especial reference to the kind of work, rather than the relation the work has to a particular industry or corporation.

### OCCUPATIONAL CLASSIFICATION

- |  |  |
|--|--|
| 1. Machinist   |  |
| 2. Mechanic, Skilled Foremen, apprenticed trades, auto-mechanics, railroad engineers, draftsmen. |  |
| 3. Mechanic, low skilled   | Chauffeurs, motormen, firemen, machine operators.  |
| 4. Professional Engineer   | Civil, electrical, chemical, etc., architects.   |
| 5. Factory Service   | Laundry workers, soap factory, box factory, etc.   |
| 6. Untrained Service   | Telephone operators, elevator operators, laborers, porters, drivers, barbers.            |
| 7. Public Service  | Policemen, firemen, mail service, soldiers and sailors.                                  |
| 8. Transportation  | Conductors, brakemen.  |
| 9. Mercantile, salesman  | Grocers, sale clerks, insurance agents, real estate, commission merchants.               |
| 10. Clerical Occupations   | Stenographers, bookkeepers, accountants, amanuensis, telegraph operators, ticket agents. |
| 11. Professional   | Lawyers, doctors, etc.   |
| 12. Fine Arts  | Musicians, artists, engravers, lithographers, photographers.                             |
| 13. Domestic   | Bakers, cooks, maids, laundress, waiters.  |
| 14. Agriculture  | Gardeners, florists, farmers.  |
| 15. Clothing Occupation  | Shoe workers, tailors, dressmakers, milliners, textile workers.                          |
| 16. Meat Industry  | Butchers, packers.   |
| 17. Not classified   | Contractors, corporation officials, general managers.                                    |
| 18. Undecided  |  |

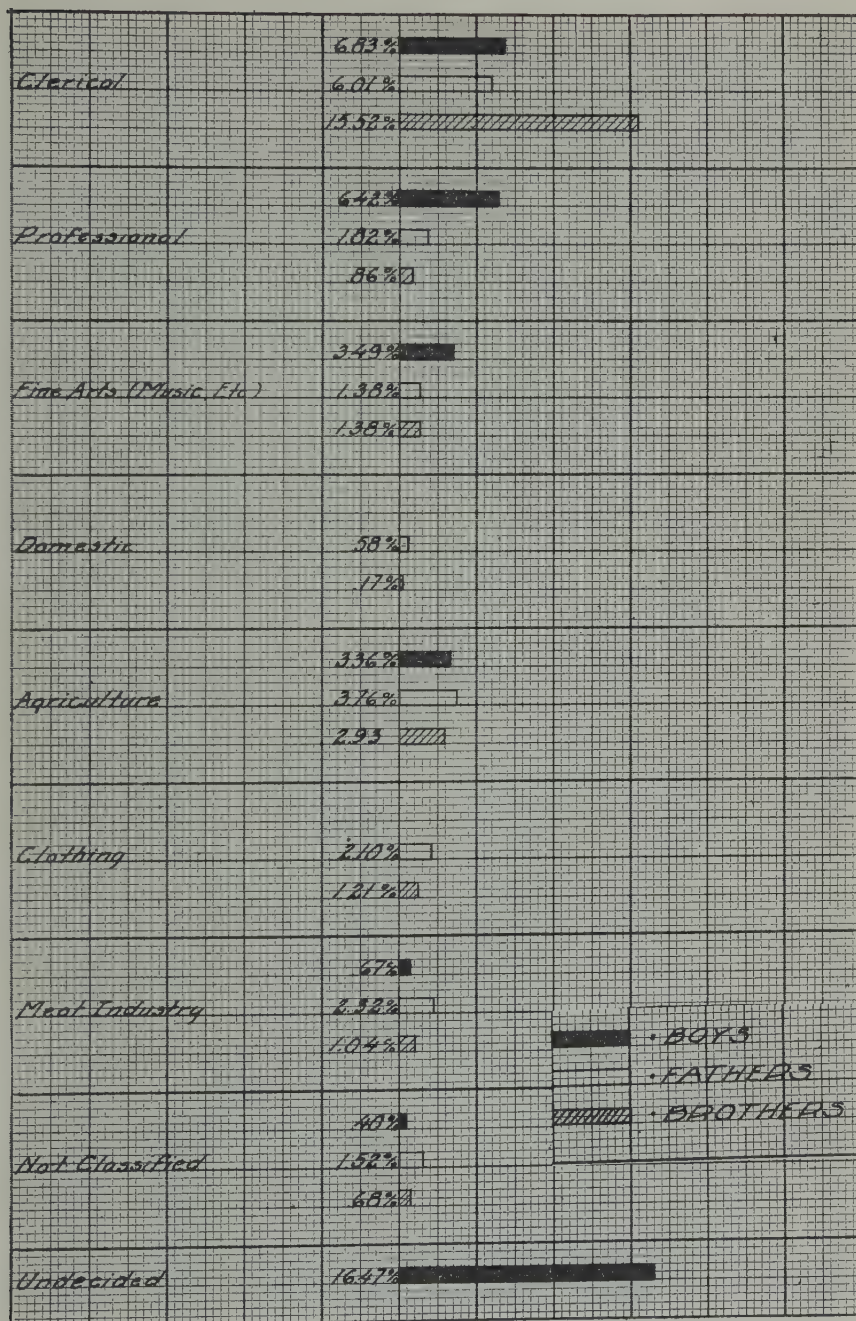


FIG. 1A—Continuation of Fig 1.



The results of this analysis appear in Figs. 1 and 1A. The significance of this study is in the close relation of the preference the boys have for mechanical pursuits, with the kind of work that the fathers and brothers are now engaged. Forty-six per cent of the boys express a preference for mechanical work.

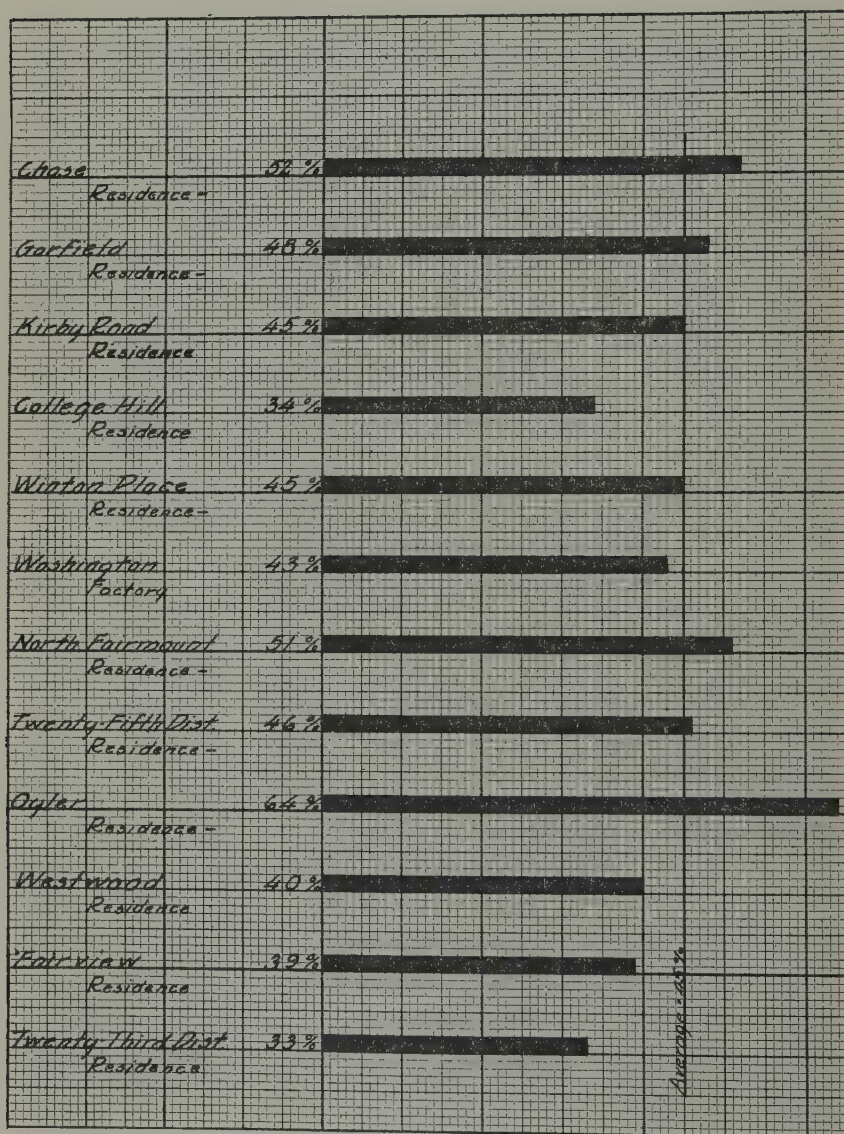


FIG. 2—Comparative industrial interest of twelve contiguous school communities based upon the occupations of the fathers engaged in mechanical pursuits of the sixth, seventh, and eighth grade boys and girls.



Forty-three per cent of the fathers are employed in industrial occupations. Forty-six per cent of the brothers employed are in these occupations.

Doubtless there will be adjustments in the final working out of the boys' plans. Some of the less capable will drop into the unskilled class, and most of the boys who express a preference for becoming professional engineers, will become artisans of the trades.

A further significance is given to the findings of this study by the fact that the census of 1920 shows that 46 per cent of the men of Cincinnati are engaged in mechanical pursuits of some character. If the work of the community is to be kept up to the standard of its needs, it will require about this proportion of workers to enter industrial lines of work.

Fig. 2, which is taken from this same study, shows a rather uniform distribution of mechanical workers among the different schools' population, regardless of whether the community is residential or factory in character. The average is 43 per cent, which is just the proportion for Washington School, the most distinctive factory settlement.

School people often have the feeling that because their community is residential or mostly so, that their pupils will not be interested in mechanical courses. Very often they object to losing their pupils when they want to make a transfer to a trade class, especially if they are normal pupils, keeping up to the standard of their academic work.

Fig. 3 shows a comparison of the expectation of the sixth, seventh, and eighth-grade boys and girls, with reference to their expected continuance in school, with the number now attending in the corresponding subsequent grades. The outstanding facts are: 55 per cent of all pupils expect to continue through high school, and that 45 per cent of them expect to drop out, most of them before the end of the ninth or tenth grades. Also that fewer than 13 per cent of any class ever finish a high-school course.

The criticisms may be made that a child's expectations are unreliable, and that the study is a comparison with only one year's attendance in the different grades, rather than a follow-up study of any single grade through all the subsequent grades.

In regard to the expectations of pupils, you will please note the very close relations that exists among the sixth, seventh, and eighth grade pupils with reference to the completion of any one grade. A similar inquiry taken from the sixth grade for the

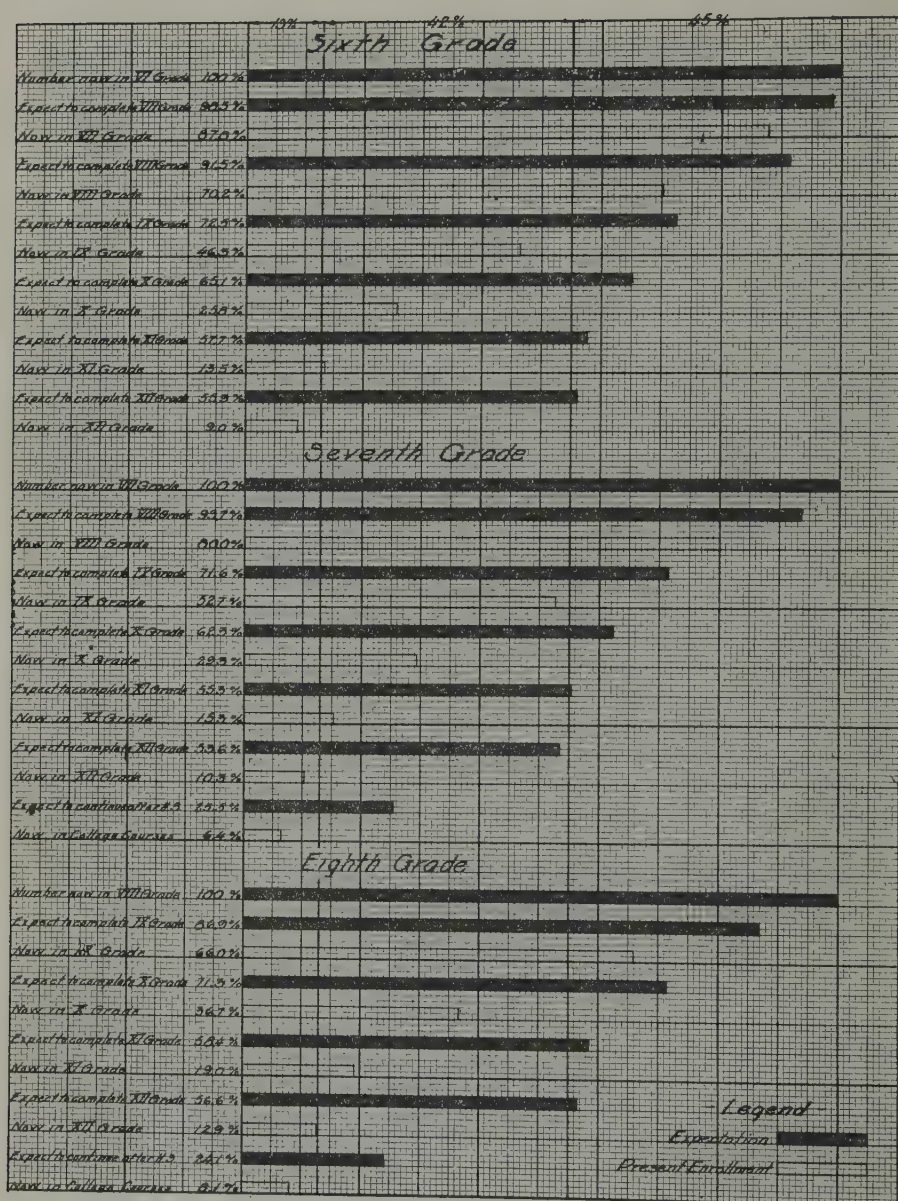


FIG. 3—Comparative study of the expectations of present sixth, seventh, and eighth grade boys and girls with the present number in the corresponding grades.

entire city shows a very close relation to the ones on this chart. This must be taken as an expressed wish of the parent as well as that of the children.

In answer to the second criticism, I wish to say that a study of school statistics through any series of years with regard to the enrolment in the different grades, will show a nearly uniform condition. At least the relations will vary but slightly. Any variation can be usually attributed to a shift in school population, or to a modification of attendance laws.

It is of tremendous significance that about 45 per cent of any class do not expect to continue in school beyond the ninth or tenth grades, which will be about the time they will be able to legally qualify for a work certificate. It is also vitally significant that fewer than 13 per cent of any class will ever complete the twelfth grade.

Fig. 3 reveals three distinct groups, each of which becomes a separate problem:

(1) A 45 per cent group that does not expect to continue in school beyond a certain time.

(2) A 42 per cent group that expect to complete a high-school course, but for some reason never do so.

(3) A 13 per cent group or less, that do accomplish a high-school course or more.

A committee of elementary school principals of Cincinnati made an organized effort to find out as nearly as possible, just what was happening to the second group, the 42 per cent that caused them to change their plans. For the purpose of their study, they made a survey of the office record cards of the withdrawals from high school for one year. The following form was used to record the data for each withdrawal.

Name \_\_\_\_\_

Address \_\_\_\_\_

Course \_\_\_\_\_ School \_\_\_\_\_

	1st. year	2nd. year	3d. year	4th. year
English				
Language				
Mathematics				
History				
Science				
Commercial				

Reason for withdrawal other than failure where known \_\_\_\_\_



The year 1917-18 was taken, because four years had elapsed. We hoped to be able to find the boys and girls that had withdrawn, somewhat permanently established in an occupation or pursuit, so that we could ascertain rather definitely what they were doing, and what preparation, if any, they had made in the meantime for their work.

Only term averages were recorded, except where the pupil had

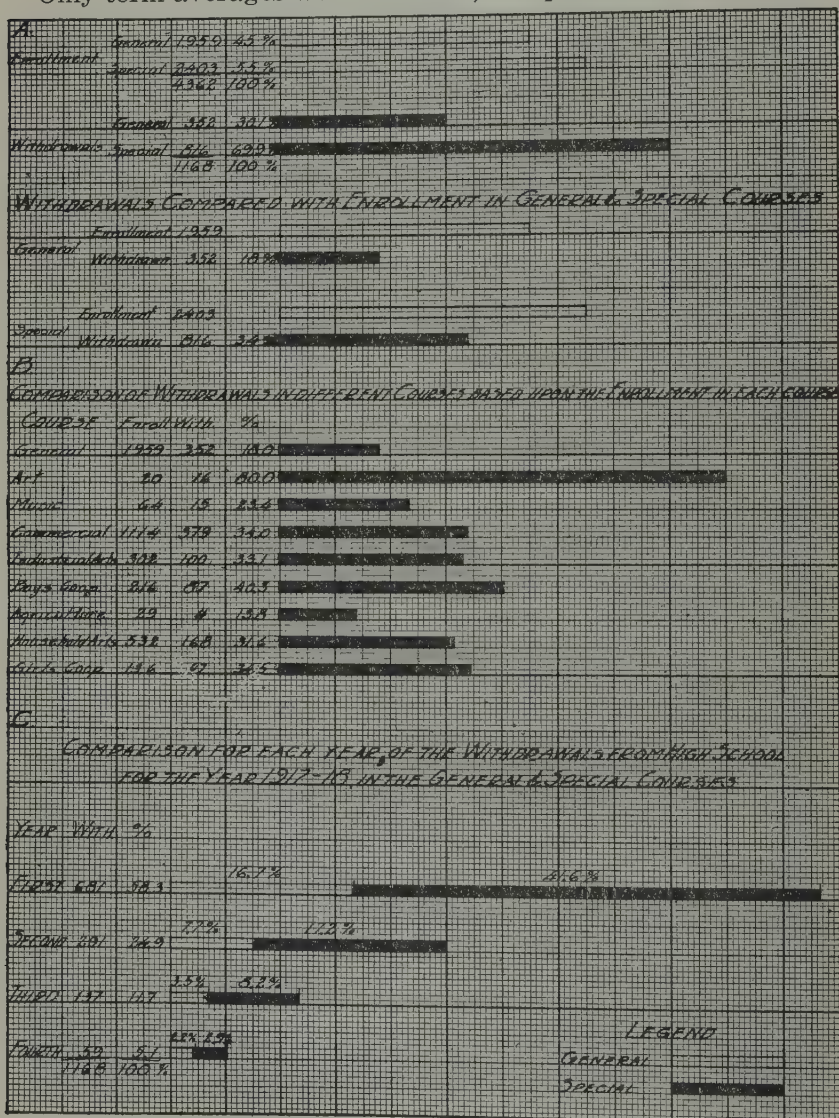


FIG. 4—Comparison for 1917-18 of A enrolment in general course with special courses; B withdrawals from general course with special courses; C withdrawals with enrolment in general and special courses.



withdrawn within a term. For these his last grade record was taken.

The facts that stand out rather prominently in these studies are that:

(1) Fifty-five per cent of the total enrolment in high school are in special courses, the names of which are more or less of

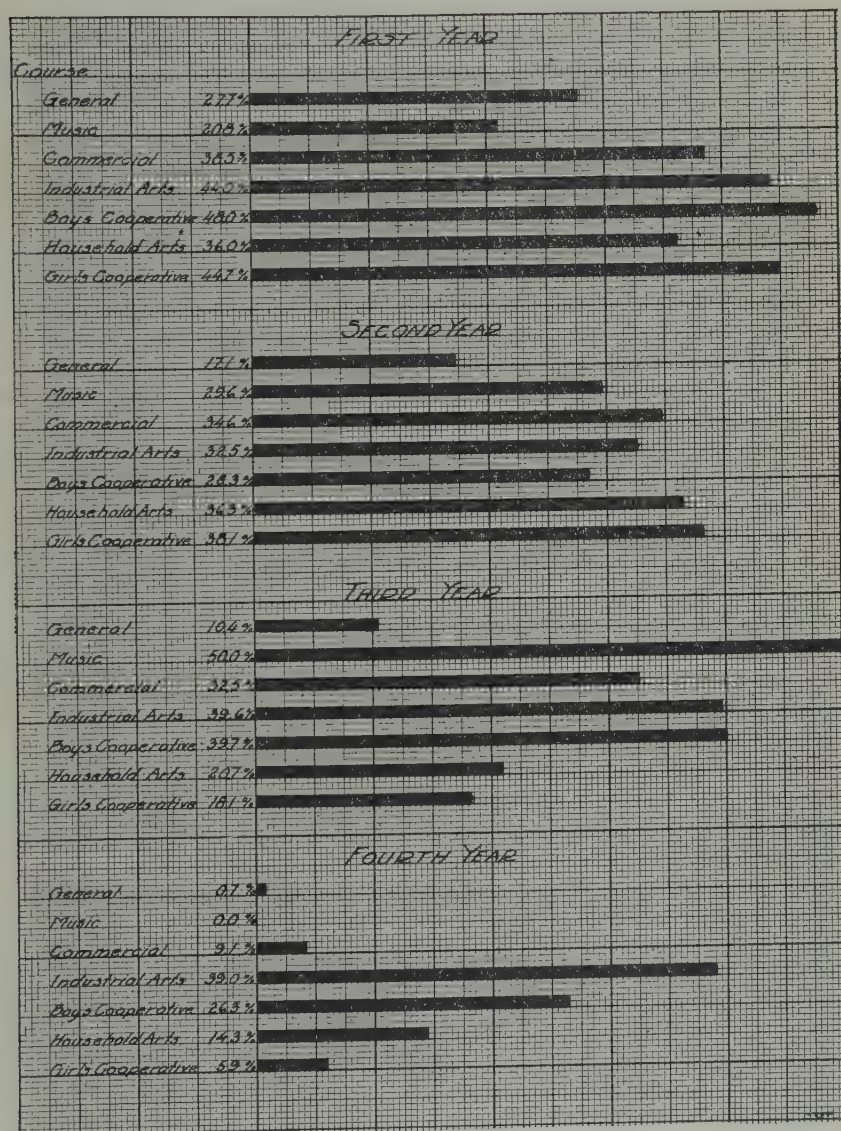


FIG. 4D—Continuation of Fig. 4. Comparison of withdrawals in high school from the different courses by years, based on the number enrolled in each course.

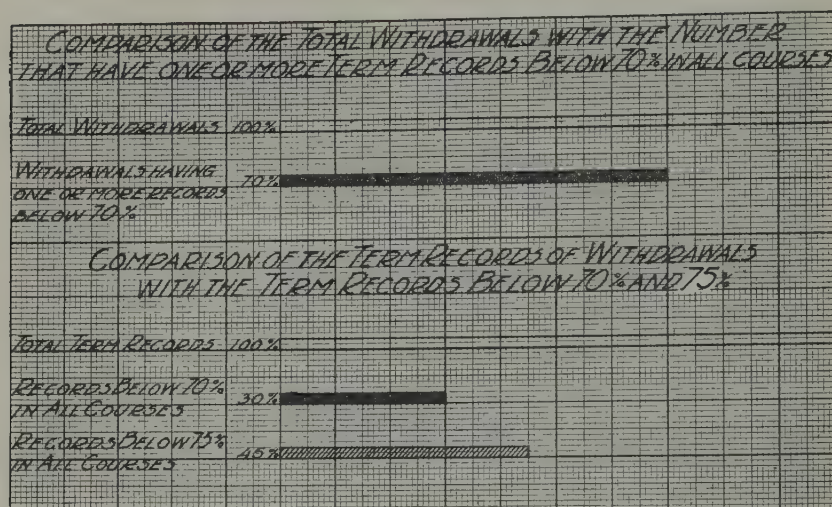


FIG. 5—Comparison of withdrawals with term records.

vocational or technical significance, but which are decidedly cultural in character; and that 45 per cent are in the general courses. See Fig. 4A.

(2) Almost 60 per cent of all withdrawals are in the first year of high school, and 83 per cent of all withdrawals are in the first and second year. See Fig. 4C.

(3) The withdrawals from the special courses are about two and one half times as large as from the general course. See Figs. 4A, 4C.

(4) The percentage of withdrawal from all special courses are greatly in excess of the percentage of withdrawals from the general course, in every year of the high-school course. See Figs. 4B, 4D.

(5) About 70 per cent of all the pupils withdrawing from high school are failing in one or more subjects. Also that about 30 per cent of all the average records of withdrawals in all subjects in all courses are below 70 per cent; and 45 per cent of them are below 75 per cent. See Fig. 5.

The follow-up study was made by each elementary principal mailing the following return postal card to the pupils that had entered high school from each of their respective schools.

## INQUIRY

NAME .....

When you entered High School did you expect to quit before completing a High School course?.....

If not, what grade did you expect to complete?.....

What kind of work are you doing now?.....

Are you doing the kind of work you want to follow?.....

If not what do you want to do?.....

Have you gone to school since you quit High School?.....

If so, where?.....

What course did you take?.....

The replies were to be returned to the principals sending the inquiry. Each principal was asked to supply the information as far as he might be able to do so, for those who did not make any

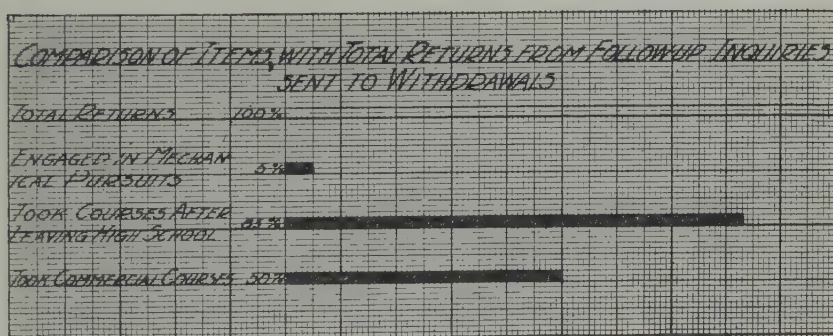


FIG. 6—Returns from follow-up inquiries sent to withdrawals.

reply. The returns were unsatisfactory, because information was received from only about one third of the withdrawals.

The tabulation of these returns are given for a few significant items in Fig. 6. It is of tremendous significance that the great mass of children that withdraw from high school, 95 per cent of them, even from the Industrial Arts courses, do not enter mechanical pursuits. Not any one of the 5 per cent of the boys that were employed in industry had entered high school with the expectation of completing a high-school course.

This would seem to conform to the findings of the survey of building trades made in Cleveland, that less than 2 per cent of



the artisans of the trades had any high school or technical school training.

Fig. 6 also shows that 83 per cent of the withdrawals, pursued some line of study after they had left school, either at a private school or at night school. A few of these courses were technical in their character, such as drafting, designing, art, music, etc. The fact that 50 per cent of them had taken or were taking commercial courses, shows that they were either employed in a clerical or business position, or were preparing themselves for such a career. Most of the withdrawals that had not taken one of the above mentioned studies had taken, or were taking, night academic courses.

*Suggestive organization*—The results from this study are sufficiently definite and convincing for us to conclude that the present organization is not meeting the needs of the great mass of children. With the foregoing facts as a basis, I wish to present in the rest of this article what seems to me a practical, a sensible, and at least a just plan of dealing with each of the distinct groups that are defined in Fig. 3.

We may accept without discussion that educators are pretty generally agreed that the first six grades of the elementary school is sufficient time to put over that part of a child's education which supplies the fundamental elements of the tools of learning. Near the end of the sixth grade, I would suggest: (a) That a careful inquiry be made by card, similar to the one used in this study; (b) that this be supplemented by reliable intelligence tests, either group or individual, with those pupils where there may be any question; and (c) that these be made the subject of careful study by principals and teachers.

The results from these records, and the study by teachers, will reveal three classes or groups: (1) Those that expect to continue in school through high school (the 55 per cent group); (2) those that definitely expect to quit at or before the tenth grade (the 45 per cent group); and (3) those that are mentally incompetent. To this group should be added those pupils from the fifth grade that are fourteen, possibly thirteen years of age (45 per cent group).

As a further means to make the future sure, I would suggest that the parents of the 45 per cent group be assembled at school, and where they do not respond to this call, that other means be employed to explain to them the opportunities that the school has to offer in the way of courses and classes, which I will suggest.



*Vocational centers*—The boys in the 45 per cent group who wish to follow a mechanical occupation, should be assigned to vocational centers, that should be conveniently located to accommodate a number of schools, so that a large enough number of boys can be assembled, to make it economically worth-while to organize classes, and to completely equip shops to train them in all the fundamental trades of the community, such as wood shop, machine shop, sheet metal shop, electric shop, automobile shop, print shop, etc.

I cannot emphasize too strongly the importance of vocational centers, rather than segregated shops. It is absolutely essential to the working out of the all-round educational problem for these boys in all its relations. It is only by means of such centers that we may hope to approach our goal, that of every boy in the right place, and no misfits.

These vocational centers should have shops with a simple general equipment, where the seventh-grade boys can be assigned at least two hours each day, for the purpose of trying them out, and for giving them instructions in the simple fundamental principles and processes underlying the various occupations. This work should be of a distinctly prevocational character. This will give the boy an opportunity to form a judgment for himself, as to what choice of a trade he should make, and it will give the school some opportunity to study his fitness, and to advise him in making his choice.

In the eighth and ninth grades, the boy should be assigned to a definite vocational shop for not less than three hours a day, or half the school time, where he will have opportunity to work out in an educational way the fundamental processes of the trade of his choice in all its relations. I say "educational way," because I believe we can justify vocational work in the school on this basis and this basis alone. The person who doubts the educational value of the vocational processes, is either an educational ignoramus or a classical bigot. Both of these are equally detrimental to a scientific working out of the educational scheme. There are more educational possibilities for the boy in learning his trade, who gets it step by step from an organized series of problems, the end of which he must see from the beginning, and which he can only reach by bringing his known processes together in the right relations, than there are for him anywhere else.

This means instructors of the highest type—not merely manual training weaklings, but artisans of their crafts, with

ability to handle boys, and to give them their work in an organized thought-provoking way. I have seen careless, indifferent boys under the direction of this kind of teacher in our limited shops at Washington School in a comparatively short time develop into reliable, self-respecting fellows, whose equal would be hard to find in the whole school system. The salary of such teachers should be large enough to attract the best men that can be had. Their contribution to the world of industry and to society is inestimable.

The educational value of the vocational school is not alone in the shop. By keeping them in school half time for academic work, their related work is given a new meaning. By a judicious selection and handling of the English and cultural subjects, with reference to their interests and future needs, their avocational education can be stimulated and given direction which will enable them to take their place in the social world.

My especial plea is for full-time vocational schools through the ninth grade. The school can discharge its full responsibility to society only by giving boys a rounded-out education—vocational, cultural, and physical. For are not the schools democratic institutions for the purpose of giving equal opportunity to all? Any agreement with either employer or employees that would exploit the schools for their own aggrandisement or for their personal, selfish ends defeats the aim and purpose of the schools. If the schools cannot furnish the community with better workmen and better men than the trades can train for themselves, then we have no right to do the work at all.

*Commercial classes*—Special provision should be made for the girls of the 45 per cent group and for the boys who do not wish to learn a trade, by providing commercial classes for them through the eighth, ninth, and tenth grades for those that must continue in school through this period. Such courses should provide intensive training in typewriting, office practice, bookkeeping and at least a good beginning in stenography. Centers should be provided for these classes so as to provide for an economical use of equipment.

*Household arts and sewing trades*—For the girls of this group who do not wish to take a commercial course, household arts classes and sewing trade courses should be provided. The household arts classes should be of a home-training character as well as a rounded-out academic course of a related nature. These girls should be transferred to centers where the work can be done

to the best advantage. The groups need not be so large as for the boys' vocational classes, because the work and equipment is not so varied.

*The mentally retarded*—For this group I would suggest that the boys be formed into opportunity classes and be assigned to the vocational centers. This class is incapable of doing organized work of any kind. It is a mistake to think they can be trained for the trades. It is a waste in the use of valuable equipment to have them in vocational classes. The most that can be done for them is to give them as much of the things worthwhile as they can take. By having them in vocational centers where they can be given as much manual work as possible in shops with a general equipment, they can be kept fairly happy. If by chance anyone of them shows an ability to do a special work, he can be assigned to a shop where he can be given a chance to do as much as he is able. Possibly some of them can be trained as helpers, and can be given a start along a certain line. As a rule, they will drop out as soon as the law allows them and become possibly machine hands, or hewers of wood, or carriers of water.

I would suggest that the girls of this group, including the ones that are fourteen years of age, be assigned to household arts classes, where they will be given half time in sewing, cooking, millinery, and the like. Undoubtedly they will in time become wives and mothers, and the school should prepare them as well as it can for this responsibility. Special opportunity should be given to those that can do so to prepare for the sewing trades. Where the regular school has not equipment to take care of this group, they should be transferred to schools or centers that can do so.

*The fifty-five per cent group*—The 55 per cent class who expect to go through high school, is probably the most perplexing one with which the school has to deal, because fewer than 13 per cent of them will be able to accomplish their purpose.

This study shows rather conclusively that failure is a large element in the cause for withdrawal from high school. The economic element, as a cause for withdrawal, is so small as to be negligible. The only other contributing cause that can be seriously considered is dissatisfaction with the course of their choice. Many of them do not appreciate the large amount of cultural subjects they must take, in order to get the technical or vocational work which they are after. Hence they drop out of high school and take an intensive course at a private institution or at night school.

This study also shows that when they drop out of high school, they enter business or commercial positions, or engage in work that tends to a career of a semi-professional character. Only 5 per cent of them enter the trades, and they would not have gone to high school at all, if they had been given the opportunity to enter a vocational school.

*The intermediate school*—It is the business of the intermediate school through the seventh and eighth grades, not only to prepare pupils for high schools, but to discover so far as it can possibly do so, the abilities and possibilities of these boys and girls, and to direct them into courses which they will be able to accomplish with a degree of satisfaction. To accomplish these ends it does not need the expensive and extensive junior high school organization and equipment. The only centralization that would be necessary, would be for the purpose of carrying out an economic classification.

The best equipment that can be given these boys and girls will be the very best teachers that the system can supply—teachers that are capable of teaching children as well as subjects; teachers broad in their sympathy and who have an understanding and appreciation of the work they have to do.

During the seventh and eighth grades with the intelligence tests as a basis, conferences should be held between parents and teachers; home conditions should be found out; standardized tests should be given; attitudes of the children toward study should be carefully noted, and every element that would make for achievement, should be a matter of detailed record.

The eighth grade should have in its course a few fundamental high-school subjects of a related character, such as algebra, elementary science, a technical language, for the purpose of trying out in an elementary way, the ability of children to grasp these subjects.

With all the data possible at hand, the pupil should be directed into the high-school course for which he appears to be suited, and to which all conditions seem to combine to make it probable that he will become efficient.

It would greatly simplify the matter of assigning pupils to high school if the high schools themselves would provide two grades of courses—college credit courses and certificated courses of vocational or technical character. The standard for the entrance to the college credit courses should be higher than for the



certificated courses. High schools will be justified in raising their standard for college credit courses, because universities are raising their standard for entrance, to meet the requirements of professional courses, the standards of which are pretty generally being raised.

With students of higher ability in the college credit courses, there should be fewer failures, and those that do not measure up to the standard of these courses, could be taken care of in the certificated courses.

*Summary of suggestions for a school organization*—For the 45 per cent that do not expect to continue through high school:

(1) Distinct vocational schools, located at convenient centers, to take care of the boys that are capable of becoming skilled mechanics, or artisans.

(2) Short unit commercial courses for the girls and for boys who do not want to enter trades.

(3) Household Arts courses for girls who wish to qualify for seamstresses, milliners, and domestic service.

(4) Opportunity classes, with provisions for a large amount of time to be given to the manual and household arts subjects, for the boys and girls who are distinctly retarded because of mental ability and who are not able to measure up to the standard required for skilled mechanics or trained commercial workers.

For the 55 per cent who expect to go through high school:

(1) Intermediate schools, especial emphasis being given to mental tests and social work, with the distinct purpose of (a) Discovering abilities and possibilities, and directing children into high-school courses which they will be able to accomplish; and (b) preparing them for high-school courses.

(2) Certificated vocational high-school courses, other than mechanical, for pupils who elect, or are not capable of taking, a college credit course.

(3) College credit high-school courses for all pupils who are able to take them, that are looking forward to college or professional study.

(4) Higher standard of entrance should be required for the college credit courses.

## THE PRINCIPAL AND THE GIFTED CHILD—FROM THE STANDPOINT OF SCIENTIFIC MEASUREMENTS

H. D. VINCENT

*Principal of School Three, Troy, New York*

WHEN we speak of retardation of pupils in public schools we are apt to overlook the gifted child. (The term "gifted child" in this article is not used in its strictest sense; it refers to pupils who have an I. Q. of from about 120 upward.) It has been said that this is the most retarded group with which we have to deal. Too often the gifted child is praised because he simply does the best work in class. Here it ends so far as he is concerned. The special help is given to the slow pupil in order that he may "pass," so to speak. As a result he gets more service from the school in proportion to his ability than does the gifted child. So long as the latter leads the class the tendency is to let him go on year after year setting the pace for the slower members of the group. There is always hope that the slower pupil will "speed up," but this seldom happens with any degree of satisfaction compared with the gifted child. Then a standardized test suddenly offers proof that certain members of the class are sufficiently superior to warrant special promotion.

It may be encouraging to the teacher to instruct pupils who are possessed with superior ability, but it is not justifiable to hold pupils back when they are capable of doing work of a higher grade. Supernormal children are out of place just as much as the subnormal in a normal classroom and, accordingly, provision should be made to satisfy the need of proper instruction for all concerned. Since it is, or should be, the business of the principal to know his school and to see that every pupil is given an opportunity to advance according to his ability, it would seem that the salvation of the gifted child rests with the principal. The question, then, might well follow: How is the principal to break away from past methods and bring about the desired results? How is he to discover his brightest pupils with some degree of accuracy in order that he may make suitable provision for them? Thanks to Binet, Simon, Thorndike, Terman, Buckingham, Courtis, Franzen, Pintner, Monroe, McCall, and many others along with their pupils, there is a way.

The progressive principal will agree that experience in elementary school work is teaching more and more that scientific education demands scientific measurements, both from the standpoint of properly classifying pupils and for improvement in

methods of teaching. We need to take an educational inventory at times and education must be able to measure its products before it can claim to be anything like a science. In order to measure the products of education there must be standardized methods of measurement. There must be a reliable measuring stick, so to speak, just as much as there must be a reliable yardstick. The personal standard will not answer the purpose, because individual opinions vary so greatly.

The highly successful attempts that have been made to establish scientific methods of measurement are to be commended. Those who have done enough testing to be entitled to an opinion admit that the reliability of standardized tests is astonishingly great. They have been tried in most sections of the country and reliable norms have been established with care. So it is possible to measure the individual child, as well as the class as a whole, with considerable precision. Educational and mental ages established by certain tests have been checked with the results obtained by using other tests and the degree of accuracy with which they have correlated has seemed almost unbelievable.

There is good reason to believe that many schools are not well graded. Time and time again teachers have complained because certain pupils in the class are unable to do the work, while others find the work too easy, thereby wasting much time. If scientific measurements come near the truth, teachers who make such complaints are justified. What may we expect when we find so many degrees of ability among the pupils of a class? In some cases teachers are trying to make pupils of fourth grade ability keep up with eighth graders, or else compel the eighth grader to mark time while the dull pupil tries to catch up. A prominent educator has said that under such conditions the work as taught stultifies the bright and mystifies the dull. A little reflection on the part of teachers will verify the above statement. We need a homogeneous grouping as far as possible. This can be obtained quite satisfactorily by the proper use of standardized tests. When a class has been carefully tested and the results show that some pupils rank two or three grades above standard and some as much below, it would indicate that the candle might well be burned at both ends—that is, remove the gifted pupils and make appropriate provision for them. If there is no special opportunity or rapid advancement class, they may be given a special promotion. At the same time those not fitted to profit by the work of the grade should be placed in a grade in accordance with their ability. If the principle that every child is entitled to all

the education he is capable of receiving holds good, there is no excuse for holding the gifted child back to wait for the slow to catch up. Neither is there any excuse for allowing the dull child to waste his time trying to do what he will never be able to do. And so it devolves upon the principal to find out where each and every child in his school belongs and so place them that they stand a chance of getting all the education they are capable of receiving.

So far as the reliability of standardized tests is concerned it may be said with some truth that they are not yet perfect. However, those who have used them to any extent generally agree that as time goes on there is a continual improvement in their reliability. Then, too, the later simplified methods of arriving directly at results such as T's, basal scores, or grades make them the more useful. Certainly it must be admitted that what is measured at all with the standardized test is measured much more accurately than a common school examination can measure. In the school examination there is always the personal standard of the examiner to be considered. Usually the personal standard doubly complicates the matter owing to the fact that examinations, as a rule, are made by one person and administered by another. Let us consider the following: If on an examination prepared by Miss Jones for a given grade, a certain pupil earns a rating of 76 per cent when rated by Miss Green, what rating might we expect the same pupil to receive on an examination of the same grade if prepared by Miss White and rated by Miss Black? Certainly no one would expect the pupil to get 76 per cent in the second case even if all other things were equal. And still it makes a great difference to the child and to his parents whether the mark is 74 per cent or 76 per cent. Even to be "passed" to the next grade "on condition" makes a great difference to a pupil and often this may so discourage a pupil as to cause him to leave school as soon as the law will allow it. It must be admitted also that committees delegated to make out examination papers are bound to make them with varying degrees of difficulty. That is, it might be harder to earn 70 per cent on the January geography examination than to earn 75 per cent or 80 per cent on the geography test for June. But still the passing mark is fixed even before the examination is made. The test is not tested until tried out on the pupil. After the results are tabulated and the marks established by "sagacious divination," as Thorndike puts it, the questions are junked. Particular care is taken not to repeat any given question on the next examination. When all is done and



said one might ask with some sense, "Who was tested, the pupils or the examiners?" And so the "long since out-of-date percentage system," quoting Dr. McCall, goes on until the school authorities discover that it is time to substitute the more modern and scientific method of standardized tests for discovering the respective abilities of school children. Then we find the gifted child.

Incidentally, it may be said there are still some defenders of the old percentage system. Those who champion the method claim examinations as used in the past will determine the same results as standardized tests. They maintain that the gifted child will get 100 per cent if his ability warrants it, forgetting the fact that a pupil who gets 100 per cent is not tested. That is to say, one who gets 100 per cent on a given test might have earned the same mark on a much harder paper. Of course the ordinary examination may indicate that the child has passed sufficiently high to warrant his going into the next higher grade; but it will not indicate that he is entitled to pass two grades higher than his present grade, as might happen if a gifted child were properly tested. When a high per cent is earned the pupil is praised and ranked perhaps as "number one" in the class, but he still belongs to the same group unless further steps are taken; while, if results are given as basal scores indicating the grade, it attracts much more attention when a child ranks one or two grades above the standard for the class. If ability to do the work is a good criterion for placement then the child is entitled to be placed in a grade as high as his ability warrants. This is not so apt to be done with the percentage basis of rating. Of course there is teaching value in the school examination, for when we examine we teach. It will also be admitted that standardized tests do not as yet cover all the significant phases of education, and in order that the teacher may satisfy herself that the local course of study has been properly covered, it may be necessary from time to time to ask for written answers based on the course of study. This will help the teacher give a more reliable estimate of the standing of her pupils in class. The teacher's judgment is a factor to be considered in the final grading of pupils according to some modern systems of scientific rating.

The reasons for determining the ability of children by means of scientific measurements are fast multiplying. Parents are coming to realize the true meaning and to appreciate the results of such tests. They respect the standardized test more than the personal standard and they are more willing to abide by its re-

sults. The principal is better fortified when he acts according to the results of tests known to be reliable. Moreover, when he has before him a tabulation of individual results including mentality, educational achievement, and effort, the teacher's judgment included, it may be said that he knows his school.

To the teacher, the standardized test is a great satisfaction. While the conscientious teacher will be able to rate her pupils with considerable accuracy, it is a satisfaction for her to verify her judgment with the results of some standardized measurement. It will increase her interest knowing that a comparison will be made between her estimate and results obtained scientifically. Conscientious teachers, therefore, invite the use of scientific measurements. From the standpoint of the pupil it is safe to say that bright and dull pupils profit by going at different paces. In a certain school 40 per cent of the pupils of the seventh grade failed last year. It is claimed that the cause was due to the great difference in ability among the members of the class. If the failures had been charged up to the teacher such a thought might have been dispelled by determining the brightness of the individual members of the class.

Then, from the standpoint of the superintendent, the use of standardized tests simplifies matters very much where it is the custom to prepare city examinations at least twice a year. This involves the appointment of committees for making the examinations and the amount of time spent by such committees is no small item, especially considering the fact that it comes at a busy time of the school year. As to cost in dollars and cents, if that should enter into the matter, it may be claimed that standardized tests are expensive. In opposition to that it may be said that city examinations are also expensive.

We are concerned chiefly with how to find the gifted child and next what to do with him when found, for "One test of every educational system is that it should be favorable to the development of human eminence."<sup>1</sup> Some teachers may claim they can select the gifted children without a test. But since we have in these days such reliable scientific methods of measurement, there seems to be no excuse for not utilizing such methods. In accordance with this idea scientific measurements were worked out in School Three, Troy, New York, in January, 1923. The TCBF<sup>2</sup>

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<sup>1</sup> H. A. L. Fisher, former president of Board of Education, London. *Journal of National Education Association*, December, 1923.

<sup>2</sup> W. A. McCall, *How to Experiment in Education*, chap. V.

method, as taught by Dr. W. A. McCall at Teachers College, was used. As a result, twenty gifted children were discovered and given special promotion in order to take advantage of their special ability. The details of the working of the TCBF system seem out of place in this article; however, for the benefit of any who may not be familiar with the system, it may be well to give a general idea of how it was worked out in this school and just how the gifted children were selected: All scores were converted into T Scores by means of norms applied to the T Scale.<sup>1</sup> In addition to an intelligence test, educational tests were given in reading, arithmetic, and spelling. Then, through a ranking process<sup>2</sup> a teacher T was established. All this gave a T in the following: intelligence (Ti), reading (Tr), arithmetic (Ta), spelling (Ts), and teacher's judgment (Tt). The average of Tr, Ta, and Ts gave the T in education (Te). The basis of finding the grade was by taking the average of Ti, Te, and Tt. This yielded a T for promotion (Tp) which, applied to the T Scale, indicated the grade and month in the grade. In addition to this, for still further information and convenience, a "brightness" score was obtained. This was done by means of the B Correction Scale, a part of the T Scale arrangement. This takes the pupil's age into consideration, the brightness score being compared with 50, which is normal. Then, too, a mark in "effort" was produced by simply taking the intelligence T (Ti) from the educational T's respectively. For example,  $Ta - Ti = Fa$  or effort in arithmetic. An effort of zero is considered normal in any given subject. The F as used in the T Scale corresponds to the A. Q. as used in the Age Scale.<sup>3</sup> A form as used in tabulating results in School Three, Troy, New York, follows:

Name	Ach	Int	Ti	Bi	Re	Tr	Br	Fr	Ar	Ta	Ba	Fa	Sp	Ts	Bs	Fs	Te	Be	Fe	TRk	Tt	Tp	Ct
Jones	144	106	52	55	21	47	50	-5	24	45	48	-7	92	57	60	5	50	53	-2	18	48	50	6.6

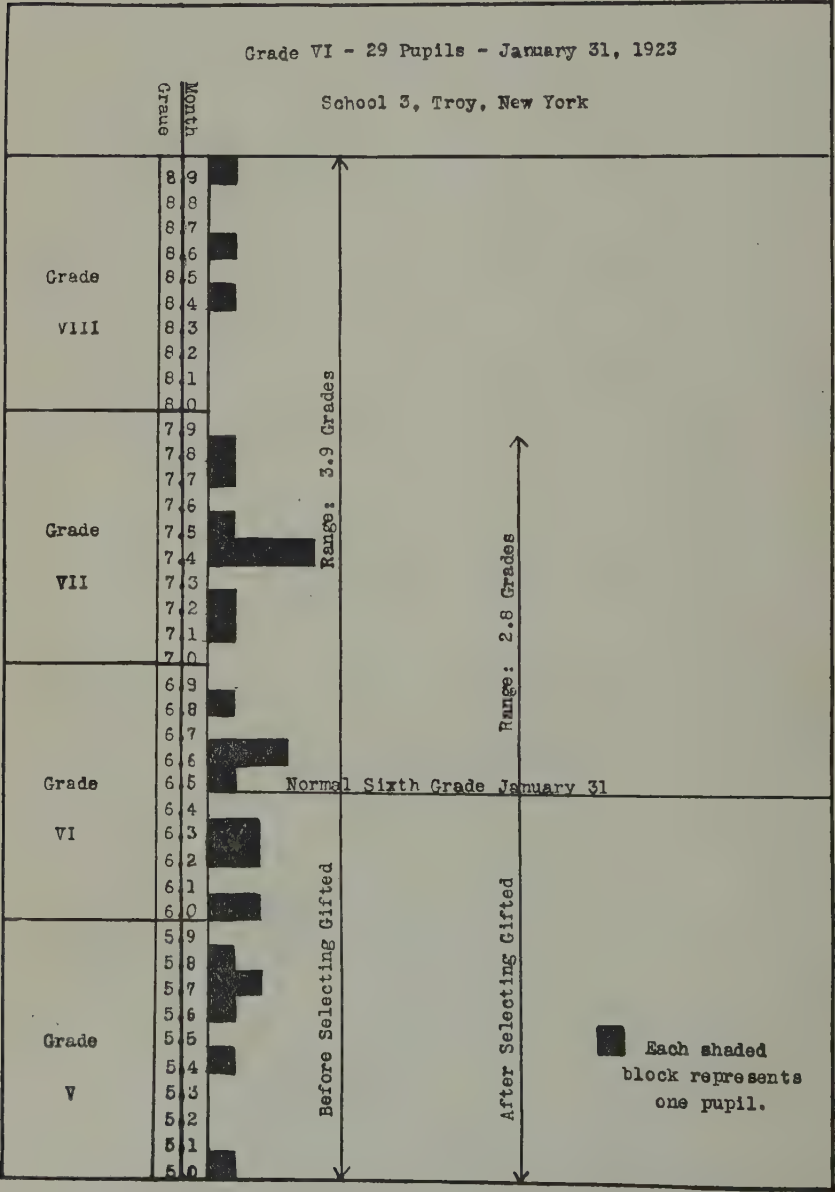
Since, according to the B Scale, the B correction for a pupil just 12 years old is 3 (plus) we added 3 to each T to get the B's. By taking 52 Ti from the educational T's we found the F's. Jones appears to be a normal sixth-grade pupil; but he does not seem to put forth effort in reading and arithmetic commensurate with his intelligence since his F's in those subjects are minus.

<sup>1</sup> W. A. McCall, *How to Measure in Education*, chap. X.

<sup>2</sup> W. A. McCall, *How to Measure in Education*, page 61.

<sup>3</sup> L. M. Terman and others. *Intelligence Tests and School Reorganization*, Chapter 4, World Book Company, 1922.

He grades 6.6, which indicates that he should be in the sixth month of the sixth grade. Since the tests were given near the end of January he is about one month above normal. The following graph, however, will show considerable deviation in both





directions in this same grade. The typical normal child should make a grade of 6.5 mid-year, and if all the pupils in the class were normal we would expect to see them all represented on the horizontal line beside grade 6.5. The truth, however, shows conditions were very different in this class. Only one pupil, number 17, appears to be normal.

According to the above graph three pupils in this class made a score of about two grades above the grade already in, and these were considered as the gifted children in the class. Being our first experiment of the kind it was understood with the superintendent that any child making a grade two years or more above normal could be given a trial in the next higher grade. We had no special opportunity class, three-track system, or other way of allowing pupils to take advantage of being gifted, therefore this was the best we could do under the circumstances.

Some one will raise the question that by skipping one half of the sixth grade and one half of the seventh pupils will miss some fundamental work. Possibly they will, but probably they will get it somehow, somewhere, sometime. It would seem from present experience that the three gifted children from the above class must have already known some of the advanced work. However, their success in school seems to prove that they either got the work somewhere or else what they missed was not worth getting, for all of the three pupils given a trial in the seventh grade at the beginning of the new term not only made good in June, but they ranked high in the seventh-grade class. They are at present in the eighth grade and doing good work. It is reasonable to believe at this time that the pupil with highest standing in the eighth-grade class next June will be one of this number.

In regard to the rest of the twenty pupils who were allowed to skip a year's work because of superior ability, it may be said that all who have remained in this school have made good. It has been a paying experiment. The writer has reason to believe that several more children in the school could have been given the same opportunity with profit to all concerned. Preparations are already under way to give standardized tests this month in place of mid-year school examinations. Without doubt it will be discovered that there are more gifted children in the school who should be given a chance to advance more rapidly than the normal child.

The tests used last year were National Intelligence Test, Scale A, Form 1, for grades 4 to 8 inclusive, and Haggerty Intelligence

Examination, Delta 1, for grades below fourth. In spelling, the grades tested were 2 to 8 inclusive and the Buckingham Extension of the Ayres Spelling Scale was used. In reading, the grades tested were 3 to 8 inclusive and the Thorndike-McCall Test was used. In arithmetic, the grades tested were 3 to 8 inclusive. The Woody-McCall Test was used in the third grade and the Monroe Diagnostic was used in grades 4 to 8 inclusive. This year we shall try an entirely different set of tests.

## CHAPTER XVIII

### DAY SCHOOLS FOR THE DEAF

ALMA L. CHAPIN

*Principal of the Gough School for the Deaf, San Francisco, California*

“WE SHALL teach our deaf children to think in the English language. We shall teach our deaf children to use the perfect mouths with which nature has endowed them. Let us teach every deaf child to speak. Let us teach every deaf child to understand the speech of his friends and fellows.”

The foregoing remarks were made by Dr. Alexander Graham Bell, in July, 1884, in an address given before an audience in Chicago, upon invitation by the Chicago Board of Education, relative to the advantages of teaching deaf children in classes connected with the public schools as compared with teaching in special institutions.

At that time there were but two public day schools for the deaf in the United States, one in Boston and the other in St. Louis. Today there are seventy-nine such schools in the United States, Wisconsin having twenty-three and leading all other States in number. California has six, the oldest one being in Oakland and the largest in Los Angeles. The other schools are in Eureka, Sacramento, San Diego, and San Francisco.

The San Francisco school was organized in 1901. During its existence one hundred and sixteen pupils have been enrolled; the present attendance being forty-five. San Francisco is the only city in the State which has erected a public school solely for its deaf children. In fact, there are in the United States only two other cities that have built modern structures to meet the pedagogical requirements of their deaf. These cities are Cleveland and Detroit. In most cities classes for the deaf are maintained in school buildings for hearing children.

On November 18, 1923, the Gough School for the Deaf in San Francisco was dedicated. Besides eight classrooms there is the manual training room for wood-working, etc., the domestic science suite consisting of a dining room and a combined cooking laboratory and sewing room, and the principal's office.

Our pupils come, not only from all parts of the city, but also from nearby towns. Older sisters or brothers or older deaf pupils usually serve as guides when needed. Now and then

young children are brought and called for by their parents. At present over eighty-five per cent of our pupils come alone. It may be said that these children have acquired an independence and self-reliance through having to travel alone. Attendance has always been satisfactory. Since 1920 when the deaf pupils were transferred from a school building for hearing pupils to a building of their own, no epidemic of any contagious disease has ever occurred to disturb the attendance.

The oral method of instruction is employed, consisting of lip-reading and speech. This method is not new, but schools using the oral method exclusively were not established in this country until 1867. Up to that time the conventional sign language and spelling on the fingers had been combined with oral instruction, but oral educators of the deaf felt that pupils should live in a "speech atmosphere" so to speak, in order to make progress. To obtain this greatly desired "speech atmosphere" it seems best to keep a child in its home and establish day schools rather than place him in an institution where he is surrounded in all his waking hours with children whose obstacles are the same as his.

In the home, the deaf child associates with the members of his family who feel more interest in him than others do. He has the normal experiences of life, competing with hearing children in the various phases of school life, and he becomes accustomed to dealing with the hearing.

Most of our pupils are totally deaf. They are admitted to the school as soon as possible, usually upon the advice of the physician. In cases where deafness is partial and the child has endeavored to remain in a school for the hearing but failed to cover the work because of his afflictions, the transfer to the school for the deaf is often made upon the suggestion of his teacher or of his principal. Sometimes the deafness of some of our pupils has been discovered by the teacher of defective speech.

Small children who are partially deaf are very apt to have defective speech owing to the fact that they hear imperfectly. These children are sometimes sent to the classes of defective speech for correction, where the deafness is discovered.

In this city the rule prevails that a *deaf* child must enrol in the school for the deaf, and children are admitted as young as three years of age. This is because little children frequently lose their hearing through illness, while very young and during the period they are learning to speak. If placed under an experienced instructor of deaf children, speech may be preserved.



In the classification of entering pupils we have children who are congenitally deaf, children who lost their hearing before speech was acquired, children who are semi-deaf or hard of hearing.

When a little deaf child comes to us unable to speak or to understand when spoken to, it is our business to give this child a means of expression, and to put him into communication with society through the medium of spoken language.

The first work of the teacher is to gain the confidence of her little pupils and this is accomplished by various exercises and games. This preparatory work develops his power of observation and imitation as well as discrimination, so that he may learn with lightning quickness to grasp the spoken language through the medium of the eye. His sense of touch must be educated so that he may learn to distinguish differences in tone vibration on the piano and in the throat, thereby aiding him in placing his voice properly.

Attention is directed to the perception of color. Form is recognized at sight and from touch. There are exercises in the perception of weight and gymnastics of the face and tongue.

Our phonetic work is based on the system of visible speech invented by Alexander Melville Bell, father of Alexander Graham Bell. In 1846, Dr. Bell first thought of forming a universal alphabet, the shape of the characters representing the different parts of the mouth. Later he made a map of the face or mouth and studied the sounds. From these maps or diagrams he produced symbols representing foreign sounds as well as English sounds. He found that sounds produced separately were different from those produced simultaneously. This system of symbols was used in Scotland in schools where public speaking was taught. It was first adopted in this country in the Horace Mann School in Boston, about 1878.

The element method is used in teaching the position of the sounds, and our element charts were devised by Miss Alice Worcester and improved by Miss Caroline Yale, of the Clarke School for the Deaf, Northampton, Massachusetts. The mainstay of our work in language is the "Five Slate System," devised by Miss Katherine Barry, of the Colorado School for the Deaf, a system developing written language in an objective, constructive, and analytical way.

Lip-reading is taught and must be learned by practice as is piano playing. It cannot be taught by pictures or explanations.

Cooking, sewing, manual training, and drawing are taught in a practical way. As the pupils acquire these lessons they often utilize them at home. Former pupils are now supporting themselves in various occupations.

It takes ten years for the pupil to complete the work of the eight grades in this school, during which time he is under the supervision of the Board of Education. When he completes the eighth grade he is eligible to enter the city high schools. One pupil, after completing high school, took a Civil Service examination and is now holding a position in the post-office. Another high-school graduate is learning the hardware business. Still another followed her high-school course with a course in a secretarial school here.

Our records show that ten families have moved to San Francisco in order to put their deaf children into the day school.

## CHAPTER XIX

### HEALTH TEACHING

MARY M. FITZ-GERALD

*Principal of John Swett School, San Francisco, California*

**I**N December, 1920, The Child Health Organization of America launched a campaign to enlist the teachers of our Nation in health education with the idea that health could be made interesting to school children. In November, 1921, the President of our Board of Education acting upon the request of the San Francisco Tuberculosis Association, gave permission to the California representative of The Child Health Organization of America to inaugurate work in the San Francisco schools.

The John Swett School, one of the two selected to do pioneer work, is a typical city elementary school with mixed racial groups and a migratory population that causes an almost complete turn-over in every year's enrolment. The development of a health consciousness that shall bring quickly under its influence every new pupil and every new teacher is a difficult task for the principal of such a school. Despite the constantly varying enrolment and the many changes among the teachers, we have worked out a health program that satisfactorily handles the problem of our thousand boys and girls. Two types of work were begun immediately: (1) Pupils' health work in the classrooms and on the playground to link up health with study and with play in every way possible; and (2) teachers' health work in committees to formulate plans and to correlate health with every branch of the curriculum.

We coöperated most actively with the Public Health Department, the Tuberculosis Association, and our special supervisors in drawing, speech improvement, and physical education. The teachers were encouraged to give expression to their originality and showed great ingenuity and enthusiasm. Everything that could be done to arouse and to stimulate the child's interest was done to make health his chief concern in school and out of school. The work was largely socialized. The Child Health Organization literature was carefully studied, and the children took the message to their homes, which happily became as active as the school in carrying out the ideas of this delightful new-fashioned health education.

Some of the ways and means employed to accomplish this result follow:

1. *Monthly weighing and measuring of all the pupils in the school*—To make this official and effective we stamp upon report cards given in grades three to eight, inclusive, two additional items: (1) Does weigh; (2) should weigh. Underweight is recorded in red ink the same as any deficiency school work. When the child is not up to weight, a note is written to the parent urging the drinking of more milk, or a personal visit to the school to discuss the needs of the underweight child. Such notes are signed "Yours for Health, The John Swett School."

The parents respond promptly. The intensive health work has made them feel more than ever that the school is a most valuable neighborhood agent.

The weighing, the measuring, and the recording, as well as the working out of percentages, are done by reliable boys and girls from the upper grades, the class to be weighed being at all times in charge of its own teacher who thus is able to keep in intimate touch with the situation. The seventh- and eighth-grade arithmetic classes, as part of their regular work, make a graph for each class weighed. The class so fortunate as to have no underweights is given a large gold star, which is displayed most conspicuously. Finally a graph is made for the whole school and placed in the principal's office for public inspection and comment. The school graph is similar to the class graph except in size and color.

1. Normal Group—white—5 per cent below to 15 per cent above.

2. Borderline Group—blue—5 per cent below to 10 per cent below.

3. Danger Group—red—10 per cent below normal.

2. *Bread and milk class*—We have developed a procedure to suit our own needs. Each morning before school time, eighth-grade girls, under the direction of a class teacher, butter bread, which is covered and screened until used. At twenty minutes past ten, seventh- or eighth-grade boys arrange the milk service and put straws into the patent capped milk bottles. When the first bell for recess rings, pupils for the milk class leave their rooms, enter the auditorium, help themselves as they pass in line, take seats, eat and drink comfortably, and when finished pass outdoors for the other half of the morning recess. The charge per pupil is five cents a day. By economical buying we create a surplus which permits free service to all underweights whose parents cannot afford to pay. A careful tabulation of forty-three underweight children to whom free milk was furnished the first



term showed that ninety-three per cent gained from a half to seven pounds in the sixteen weeks during which they were served. Seven per cent neither gained nor lost weight, but continued underweight, because as they gained in height the normal weight standard increased. We found as we continued working that it is impossible for the underweight child who is continually growing to reach normal weight unless he has extra meals and obeys the rules of health. Owing to the resistance developed through the extra morning meal and the mental attitude of the children toward health, we have had but little sickness comparatively.

3. *The fairy health house*—This device is used in the four primary grades. The teacher draws a large house on a three by four sheet of heavy paper and marks off spaces for bricks and shingles. The house is then finished as a class project calling for health habits respecting cleanliness. Clean ears, clean eyes, clean nose, clean teeth, clean neck, clean hands, clean nails, clean shoes, clean clothes are obvious. When the morning inspection discloses a row perfect in any one of these virtues, that row is permitted to color a brick or a shingle. Each row has its own color so there is great endeavor to make a good showing. Lack of cleanliness is a matter of discipline that is taken up immediately with the home.

4. *Rules of the game*—Every day one rule is discussed and made the basis of the oral and the written language work of the day. When the spelling or the grammar lesson demands the making of sentences we require that such sentences shall embody health facts whenever possible. We have made remarkable collections of pictures and educational posters which, upon request, have been sent to us by lithographers, by producers of fresh and canned foods, and by handlers of materials concerned in hygiene and sanitation. The children vie with one another in getting from the butcher, the baker, or the grocer, a fine picture to help the health work. Every chance we get we use "the rules of the game" to enliven and to motivate the work of the Course of Study.

Of all the rules of the game the one most stressed is "A bowel movement every day." In the upper grades the principal broached the subject and thereafter pupils and teachers discussed the rule most naturally. The dreaded castor oil was replaced by roughage, the virtues of cabbage, sauer-kraut, spinach, and other leaf vegetables were explained, oatmeal and whole

wheat bread lauded, care of the teeth and much water drinking insisted upon, and exercise and fresh air given the first place in keeping the bowels in good working condition.

Hoping to produce great improvement in the observance of "the rules of the game" during November, 1923, the children from the third to the eighth grades, inclusive, kept a daily record of "health habits." After the first two weeks, the teacher discussed with the pupils the necessity of faithful practice. The month's records were carefully tabulated, but as yet comparative statistics are not ready. A chart is herewith attached.

Name\_\_\_\_\_

Date\_\_\_\_\_

Grade\_\_\_\_\_

### DAILY ACTIVITY RECORD

	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S
I was in bed 10 or more hours with windows open.....																					
I brushed my teeth at least twice.....																					
My bowels moved at a regular time.....																					
I ate 3 regular meals (wholesome breakfast).....																					
I ate at least 2 vegetables.....																					
I drank 4 glasses of water.....																					
I drank no tea or coffee.....																					
I drank at least 3 glasses of milk.....																					
I washed my hands before every meal..																					
I played 1 hour or more of vigorous games.....																					
Total number of points																					

Total number of points possible for 1 week—70.

Indicate each score by inserting "1."

Indicate absence by inserting "A."

5. *The busy work health book* — Every child delighted in making this book. It so absorbed his interest that it took every spare second in school and gave employment at home for many hitherto idle moments. The first page of the inside cover is given to a tiny poster of Cho Cho's "Rules of the Game." The second page shows the owner's monthly record in weight and height, which in the lowest grades must be transcribed by the teacher. Thereafter the pictures selected have to do with the work of the day. In the kindergarten, milk bottles, milk men, milk cans, milk ranches, milk trains, orchards, farms, Indians, wigwams, cows, clowns, and other things talked about are cut out, colored, and pasted in their books. In the first grades the daily talks lead to the supplementary reading lesson which is printed upon the blackboard, read by the child, reproduced orally, struck off on the teacher's printing press as leaflets to be pasted on the Health Book, and followed by illustrations drawn by the little artists or cut from can labels, discarded books, and old magazines. As the children progress, their work centers on things good to eat and why, so we have pictures of above ground vegetables, groups of food to show iron, lime, acid, fat, or flesh content, and the making of menus for breakfast, luncheon, and dinner. When they are able to write a word, and later a sentence from the writing lesson, they are proud to have the Busy Work Book show their skill. Unconscious tuition wends its way most serenely—words the child uses as part of his regular vocabulary, and facts and fancies he acquires are not supposed to come until a much later stage of his development. But they do arrive, and the child feels the urge and expresses himself most intelligently.

The second grades go further. The health talks, particularly those on fresh air, sleep, teeth, milk, and leaf vegetables, correlate with the language work of the first term as sentences, and of the second term as topic paragraphs. When a suitable sentence is given by the pupil, it is written on the blackboard by the teacher and copied in the Busy Work Book by the pupil. Finally, the teacher writes these sentences on cards and uses them for blackboard writing material to be used by one section of the class at a time, thus affording opportunity to do individual work with backward pupils. The sentences are soon learned by heart, reproduced orally and in writing, and taken home to mother and father who are delighted with the common sense work of the school. Now begin to appear correlations with arithmetic. Little problems are illustrated by pint and quart milk bottles,

milk bottle covers, fruits, and vegetables, and number stories afford a good vehicle for further health work.

The third grade augments the work by gathering materials when there is a special drive on raisins, prunes, or eggs, or when a fruit or a vegetable makes its first appearance in the market. Talks resulting in blackboard compositions give a little story as to origin, the food value, and a good way to serve, all of which material later finds its way into the Busy Work Book.

In the fourth grade, Mrs. Jenkins' Sketch Book, "Milk, the Master Carpenter," Happy's Calendar, and "The Land of Health" Map, Child Health Organization literature, further develop the child's initiative and furnish many incentives for original projects and dramatizations. This work continues in the grammar grades—some books are unique, beautiful, and most illuminating projects. The higher the grade, the more closely is this work correlated with the Course of Study. The seventh-grade charts, menus, and books on calories, and the eighth-grade charts and books on foods and their vitamins are worthy of most careful consideration. The wisdom acquired and the habits formed tend not only to the uplift of the school, but also help the general morale.

6. *Speech improvement*—This is a school activity which is concerned with the health of the child as vitally as the problem of underweight. The stammerer is always a nervous person. Nervousness, though not the cause of stammering, greatly aggravates it, while stammering in turn greatly aggravates the nervousness. These conditions work together to undermine the health of the child and retard his progress. The speech improvement work is carried on by every teacher in the school working in conjunction with the special teacher. This term we have sixteen bad cases of stammering. Special breathing and vocal exercises are given the stammerer daily for one half hour to help him control himself physically, mentally, and emotionally as regards speech production. The class teacher expects each such pupil to recite regularly, and so gives him enough time as well as great encouragement. His classmates help him by their friendly attitude. Finally, during the public exercises held to mark the close of the school term, the stammerers face the large audience and each one recites a stanza of the poem selected to show his ability to speak in normal fashion.

Besides the stammerers there are eighty-eight defective articulation cases. These are taught the correct use of their vocal organs under the instruction of the special teacher who gives a



half-hour lesson daily to each of these groups: (1) First and second grades; (2) third and fourth grades, and (3) grammar grades. Also, daily in every class in the school the regular teacher gives a five-minute articulation drill as an introduction to the reading lesson. With this constant training and regular work with his classmates the pupil loses his self-consciousness and becomes a happy, healthy, well-poised child.

7. *Play activities*—The Play Chart is a part of the equipment of each room. It is a monthly record of daily play kept by the pupil himself. The child is urged to play at least one vigorous out-door game each day. When the weather permits, the classes go out of doors to take the Decathlon test or engage in the yard games suggested by Bancroft. We have a regular yard schedule to prevent interference of classes and are assisted by the fine coöperation and the close supervision of the Physical Education Department. Then, too, as part of our play, we have toothbrush drills, guessing games, motion songs, indoor games, folk dancing, and dramatizations.

8. *Posture*—Every room is furnished with a Posture Chart in compliance with the State Law. Whenever the occasion demands, instruction is given in correct posture. As the lines pass out of the building to the yard or to the street, and during the daily visits to the classrooms, the principal gives close and active attention to each child so that with the constant coöperation of the teachers the John Swett School has in this respect attained the highest rank in the rating of school to date by our Physical Education Department.

9. *Ventilation*—Hoping that the lessons given to the children in class would be put into practice in the homes, special attention was given the subject of ventilation. The children discussed the necessity of well-ventilated school rooms and well-ventilated homes, and some simple experiments were performed as the regular work in science. The State Law requires the teaching of hygiene and sanitation. That part of the State Series Text-book dealing with ventilation was frequently given and largely stressed. Every two weeks the classroom teacher appointed a committee of three pupils to attend to classroom ventilation. Their names were posted in a prominent place and their responsibility made of great importance. The whole class watched to see that they were not remiss in their duties and visiting nurses and teachers commented upon the excellent atmosphere of our school.

10. *Drives*—There has never been a time in the history of the school when the drinking of tea and coffee has not been fought. For the past two years the game of the Milk Bottles chasing the Tea Pot and the Coffee Pot out of the classroom has been played to such good purpose that there is but little fault to be found with the kindergarten and the primary grades. We award a blue star the same size as the gold weight star to each class with a clear daily record. From the first of March to the first of June of this year we conducted an intensive campaign by using debates and compositions in the seventh and the eighth grades, and by discussions and oral reproduction thereof in the fifth and the sixth grades, by talks and games in the primary grades, notes to parents, etc., with the result that in the given time we have reduced coffee drinking 63.5 per cent. The first of June but 16.6 per cent of our pupils were coffee drinkers. We noticed particularly that coffee displaces milk in the diet of the seventh- and the eighth-grade children. To offset this, we were obliged to make a most vigorous milk campaign.

Our second drive was to regulate candy eating. Realizing that candy eating between meals is one of the worst faults of children, and as disastrous to health as coffee drinking, this fall we made a tremendous effort to discourage this bad habit. We kept a Candy Chart to record candy eating within the half hour following meals, and pursued whenever possible tactics similar to those employed in the Anti-Coffee Campaign with such good effect that there are frequent playground discussions as to the food value of candy and the right time to eat it. There has been a remarkable falling off in the amount of candy consumed. I speak from personal contact with the children, because in our city every elementary school principal is obliged to take charge of the boys' yard before school and during intermissions.

11. *Correlations*—Groups of teachers work on separate subjects to correlate health education with the course of study. It is absolutely necessary to take advantage of the time and the suggestions given so that we may carry on the health work in such manner as not to destroy its spontaneity, so also that we make the subjects now in the already crowded curriculum serve our purpose and lend themselves to incessant motivation by health topics, health problems, and health projects. This we do intensively and extensively, and as a result find that although there is no set place for the work in our school program, routine and system help to make effective this coördination and correlation of health education with the ordinary every-day work of the school.

12. *Professional visitations*—Any time after the first month of the term a demonstration may be made at a day's notice because the health work is then well in hand. We gave several demonstrations to school directors, deputy superintendents, out-of-town teachers, nurses, supervisors, and physicians. The visits of these educators were most stimulating and very largely helped to keep alive the interest of pupils and teachers. The principal's visits to the classroom, her daily talks on health, and her generous recognition of good health work made every one anxious to present something original or distinctive. To persevere, one needs unlimited good-will, and every day there was the manifestation of such a spirit by the teachers, and such an ardent response by the pupils that there resulted a splendid "Health First" program.

## THE PRINCIPAL AND HIS RELATION TO THE PHYSICAL WELFARE OF HIS PUPILS

EDWARD H. DUTCHER

*Principal of Eastern and Stockton Schools, East Orange, New Jersey*

N O PART of the principal's work should appeal to him more strongly than that connected with his pupils' physical welfare. To train the mind, to develop good citizens, to upbuild strong character—these great objectives of education are generally conceded as fundamental; but with the physical welfare of the children receiving indifferent, perfunctory, or inadequate attention, these aims fall short of their greatest achievement, or fail to carry on to ultimate and permanent success. The old adage, "Mens sana in corpore sano," too long held a nominal sway and was accepted in theory, but without proper and practical means for securing the sound body.

For some years progress in education has been indicated in a degree by the amount of time put upon physical training, and by the introduction of improved systems of heating, ventilation, lighting, and sanitation, but it took the draft in the world war to reveal to us how weak and physically defective was our youth. Then we awoke to our condition and exclaimed, "What must we do to be saved?" or rather, "What can we do to save our boys and girls and make them well-developed, robust, strong, self-reliant, clear-thinking American citizens?" A new era has dawned, and the public generally and schoolmen in particular are awake to the demands of the time and are putting forth every effort to discharge these newly discovered responsibilities with



an eye single to the greatest benefit of the individual child, and consequently, to the welfare of the race.

It is not the intention of the writer to outline a course in physical training, hygiene, and sanitation as generally understood. These matters are in fairly good condition in our schools, are carried on with an increasingly scientific and psychological presentation, and are effective as far as followed. Rather would he offer some suggestions that are more personal to the principal who too often finds his time so fully occupied in matters of school routine as to cause him to miss some of the really great opportunities of his professional life.

One of the most encouraging features in physical education today is the changing viewpoint. It was formerly thought that physical education concerned itself only with formal calisthenics and gymnastics, but now we demand a "more functional program and a less stereotyped teacher"—that is, we are interested in *health* education. We need muscular exercise, it is true, but coupled with it are certain factors of mind and environment that have too long been neglected. The social value of physical education must be considered and secured, the broadening of the work into games, folk-dancing, supervised and free play in the open air outside of stuffy, ill-ventilated classroom, a formality in informality, a freedom under proper direction, an abandon within control—experiences at once healthful and life-giving, and providing knowledge, skill, and control—activities desirable in themselves, and opening up further human interests and desires leading to loyalty, truthfulness, honesty, altruism, self-sacrifice, generosity, and social well-being.

Because of this changed and enlarged view each year shows great progress in the character and variety of physical training. The work is less formal and perfunctory; it provides for greater interest; it demands more thought and mental activity; and it has become far more enjoyable and is performed with greater zest and enthusiasm than ever before. Under the skillful direction of expert physical training teachers who are being furnished in ever-increasing numbers, this phase of the pupils' welfare will progress in efficiency and achievement, and upon these teachers the principal may well place the direct charge and responsibility with entire confidence in the outcome, always manifesting such an interest and familiarity with the work as to inspire the children to greatest effort and offer the moral and professional support so gratifying and necessary to the teacher.



There are other phases of welfare work, however, to which little attention is given in some schools and which, in the opinion of the writer, seem to warrant the especial care and oversight of the principal; for by his endorsement, by his influence in the community, by his knowledge, and by his authority, direct or implied, he is able to accomplish results that are far-reaching and permanent in the lives of the children. The word of the principal "goes," and by introducing some of the features mentioned below, by influencing his patrons to coöperate with the school, by manifesting a lively personal interest in the matter of the pupils' real health, he can accomplish, and has already accomplished in many places, wonders in the line of physical betterment and permanent health. When the principal realizes the fundamental importance of a healthy and happy child, he will enter upon the life of a real principal and assume a responsibility for even the least of these, to the end that not one of these little ones shall perish.

While it cannot be said truthfully that underweight and height are always indications of weakness and lack of physical fitness, it has been proved in such numbers as to warrant belief at least as far as to lead to individual investigation. Hence the practice of the regular weighing and measuring of children, with permanent records is recommended. When such records are secured, inquiry and investigation follow naturally, and a long step is taken toward individual improvement. Homes become interested, inquiries as to the best kinds of food are made, and opportunities given for suggestions as to diet, exercise, sleep, and general habits, thus leading to the benefit not only of the child, but of a whole family.

The practice of supplying milk, with or without rolls and crackers, during the session has become a custom in many systems. This light refreshment, served without interruption of the work, in the middle of the forenoon, especially for those whose breakfast was scant, or eaten early or hurriedly, or not at all, is gratefully appreciated by many a child who soon begins to show the good effect in improved appearance, keener interest, better spirit, and quicker reaction to the work of the school. Nor is this practice to be confined to the "poorer sections of the city." Figures prove that some schools in the wealthier districts have a larger percentage of undernourished children than in some of the so-called less fortunate wards. This is not a work of charity, but commends itself as a matter of health and happiness to be secured and enjoyed by "high and low" alike. This custom need

not put added burdens on the principal. Once inaugurated, the system works automatically and without trouble, and he is free to direct his attention to other necessary "health reforms."

The care of the teeth is an important part of the class work in hygiene, and yet the principal must supervise this feature in order to keep up the interest in drills, inspections, etc., especially where no nurse is employed. He must go further, and through his influence find an opportunity for the children to have the benefit of a dental clinic where parents may be advised as to the needs of their children and where necessary treatment may be provided for those unable to bear the expense of ordinary dentistry.

If the school is provided with the expert medical inspection and supervision of doctor and nurse, the principal is relieved of much care and responsibility, but his interest in all that pertains to the medical department must be at once intelligent and evident, for he stands in an important relation to doctor, nurse, parent, and child, and often insures the success of the plan by his participation in it. Should medical inspection be wanting, however, a double responsibility rests upon the head of the school, who by personal observation and direction of his teachers must do all that is possible to make up this great loss, while at the same time educating his community to a realization of the imperative need of proper health supervision.

The principal should further extend his interest to matters pertaining to orthopedic defects, incipient or fixed. This narrows his inquiry from large to small units, from classes to individuals whose claim for attention and help may be most deserving. General pose and posture are coming in for a large and well merited share of attention, and efforts are being made to inculcate correct habits of standing, sitting, and walking—and how great is the need! Careful inspection is necessary, and when individual defects are found, especial corrective exercises must be provided for the children affected, which should be given with a conscientious regularity that realizes the importance of the treatment and the ultimate gain to be secured. It sometimes happens that cases are found that demand surgical aid. In such cases, especially among the less learned and well-to-do, the principal's advice and influence are most potent factors in securing relief or cure, and no better service can be rendered by the head of the school than in being instrumental in the remaking of children's bodies and giving to them the joy and happiness that are supposed to be the heritage of every child.

A new factor has come into education in these latter days, a demand for a kind of instruction unknown and unneeded in the days of our fathers. The evolution and development of the automobile and the increasing and rapid means of transportation have brought in a demand for "Safety-First" that presents a problem of responsibility to the principal as difficult as it is imperative. The child's right to live is inherent and must be conserved first, last, and all the time. Definite plans must be formulated and carried into execution under the direction of the principal upon whom the responsibility especially rests and from which there is no escape. "The life is more than meat and the body than raiment." Therefore, a radical rearrangement of values must be effected to meet the new requirements, and the field of personal oversight of the children extended. Police protection and coöperation outside of school must be secured, safety patrols organized among the pupils, lessons and projects in street conduct, emergency situations and first aid taught, slogans adopted, moving pictures and other forms and devices of instruction brought into use in order to keep constantly before the children the dangers with which they are surrounded and the necessity of the prevention of disaster.

The principal needs to give thoughtful consideration to the matter of athletics. So potential for good, this phase of physical education is so fraught with danger that many educators today are expressing doubt as to its advisability in schools as at present conducted. It is not a question whether athletics as such furnishes the means for exercise. All will admit that under proper conditions the athlete is physically well-trained, howbeit it may be along some specialized line. The trouble is likely to arise in one or more of the following possibilities of danger, which must be considered, weighed, and settled to the greatest benefit of his school by each principal: (a) School athletic contests too frequently appeal to the few rather than to the many, thus depriving the majority of the good resulting from the period of training; (b) overtraining and overstimulation; (c) unwarranted ambition to win for self-glorification or for "the honor of the school"; (d) the development of an unsportsman-like spirit and corresponding desire to win at any cost; (e) the commercializing of sport and the unmoral consequences attending this last stage of the game. ✓

Here the principal must exert his greatest influence in developing the true sport spirit that makes modest winners and good



losers; that encourages each competitor to feel that his opponents are worthy of respect and regard even when winning; and that develops a hatred for underhand practices and questionable tactics. There is need for more class or general athletics and less school and individual work; more boys and girls participating in the games and in hearty, good-natured competition, and fewer on-lookers who occupy the bleachers or stand on the side lines and cheer. Such participants (?) fail signally to grow into the leaders they might become when impelled by different motives and ambitions. On the contrary, they derive little physical benefit, while they develop bad habits, partisan spirits, laziness, and false ideas of sport—an attitude entirely un-American. This unhappy condition into which athletics may fall can and *must be prevented* by the principal who sees clearly, and who believes, and what is more to the point, can make his boys and girls believe that loyalty to his own school does not prevent his welcoming and enjoying the success of other schools when they present the better team and really win because of superiority; who will not sacrifice scholastic standing and scholarly effort to physical prowess and laggards who win only in the field and on the track; and who stands immovable for an ideal in American sport. Such an attitude makes for the real aim of all physical education and should command and receive the unreserved support of every principal. ✓

Do the proper relations of the principal and the physical welfare of his pupils make too great demands upon his time? Do the requirements make serious inroads upon the other functions he is called upon to perform? Is this a matter of the proper evaluation of the elements and determining factors in education? These questions must be weighed carefully by the principal. He will take into account his own aim in life; he will make a fair estimate of his influence among the children and in the community; he will consider the permanence of this influence; he will determine which of the subjects in the curriculum will soonest be forgotten and which will endure as a part of the child, which are most worth while. When this has been done, there seems to be but one conclusion at which he can arrive.

The greatest privilege as well as duty of a principal is to make some contribution to the "abundant life" which a great Teacher once said He came to bring to mankind. To accomplish this desirable end, let us seek first the perfect health, the physical and moral welfare, and the happiness of childhood, and all these things, administration, organization, supervision, scholastic attainment, will be added unto us.



## SAFETY EDUCATION IN THE CHICAGO SCHOOLS

GEORGE B. MASSLICH

*Superintendent, Chicago and Cook County School for Boys  
Riverside, Illinois*

**A**N ACCOUNT of the long and tedious steps toward the fulfillment of such a project as that of embodying safety instruction in a school curriculum would need an apology if it were not that just such steps mark the inception of every new enterprise, and that progress is made through short cuts away from the weak spots of a previous like endeavor. We are familiar with campaigns of education that for the most part are provokers of enthusiasm. As a means for enlisting public interest and securing funds the campaign of education is not unlike the military show of uniforms, banners, and music in wartime. It is a necessary preliminary.

Children are being killed in accidents of all kinds and in numbers that make war losses seem small in comparison. Knowing this fact, we might suppose that every school system would at once include in its course of study definite instruction in accident and fire prevention. But the process is not so simple; the campaign of education must be entered upon even with educational experts.

The Chicago Safety Council, which is affiliated with the Association of Commerce and is at the same time the local member of the National Safety Council, persuaded the superintendent of schools to invite Dr. E. George Payne to address the monthly meeting of principals on the subject of Safety Education. Dr. Payne showed conclusively that of two schools of like size and in a like environment the one in which safety was consistently taught had greatly reduced the number of accidents to its pupils, not only about the school but in their homes and their play centers. At a conference arranged subsequently by the Chicago Safety Council, and at which were present representatives of civic organizations, women's clubs, the city Fire Prevention Bureau, the superintendent of schools, and others, an earnest request was made that there be prepared for the use of school children before the summer vacation a pamphlet of instruction relative to the dangers most common to vacation time with its water sports and street play.

Shortly after a sixteen-page pamphlet was prepared by a committee of three principals appointed by the superintendent

of schools and was distributed to teachers for use in June, 1921. In spite of two circumstances which would tend toward an increase in accidental deaths—a hot summer that drove everyone to the parks and beaches and a pageant at the Municipal Pier that lured thousands across the most dense traffic of the city—in spite of these, the accidental death rate for children in Chicago was materially reduced. Much of the credit for this decrease was attributed to the use of this pamphlet in the city schools and, whether deserved or not, was made an argument for an all-year-round course of safety education.

At the request of the superintendent of schools, therefore, this committee of principals, consisting of Mr. O'Hearn, Mr. Voorhees, and the writer, worked throughout the school year of 1921-1922 and, with the coöperation of the Chicago Safety Council and the National Safety Council and the criticism of nearly a hundred persons interested in the safety movement, the manuscript of "Safety Education" was given to the printers in the fall of 1922. Unforeseen delays prevented the printing of the book before February, 1923, at which time a copy was put in the hands of each teacher. More than a thousand copies were sent free to inquirers all over the country, but further requests for the purchase of the book by school systems, railways, and industrial concerns were refused following a legal decision that the Chicago Board of Education, which owns the plates of the book, has no right to become a bookseller. It is hoped that some way may be found to make the book available to other school systems.

It was not the intent of the authors to add another subject to the great number in the elementary school curriculum but rather to aid the motivation of existing subjects. Just as honesty, thrift, courtesy, temperance, good citizenship, and the like may be best taught, perhaps, by implication, so may a regard for the personal safety of one's schoolmates so flavor the various school activities that habits and controls are established. The habit of first looking to the left and then to the right when crossing a street is formed in exactly the same manner as that of saying "Thank you," or "Excuse me."

The Chicago course of safety instruction, then, seeks through the dramatization of safety incidents, the solving of problems whose numbers relate to accidents, the illustration in posters, on the sand table, on the bulletin board of dangerous situations and safe situations, through school organizations for the correction of some playground practice or careless habit in passing

to and from classrooms, through these and other pupil activities the course seeks to keep in the fringe of the pupil's consciousness a feeling for carefulness.

The textbook itself is intended to be put into the hands of pupils above the third grade and contains group and individual projects of sufficient variety that a teacher whose inclination is toward parades and pageantry, or toward making graphs of statistical tables, or toward debates, parliamentary practice, and pupil organization, or toward any other form of pupil exercise may do his share toward the formation of safety habits. As an aid to visualizing the more frequent dangers and in a measure to focus attention upon a kind of accident at the time of year when it is most prevalent or when for some reason it merits our attention, the Chicago text suggests a month-by-month emphasis of this type: September—street dangers, following vacation days of playing in city streets; October—fires, when stoves are being set up and leaves are being burned; November—weapons used in play or in war—Armistice Day—our heritage of hate and so forth.

Inasmuch as safety teaching after this plan is only in small part separated from the accepted subjects of instruction, no definite allowance is made for it in the time schedule. In practice it comes about that in one school much is made of the School Safety Patrol. Both girls and boys are members and the group has considerable authority, not only over pupils on their way to and from school but about the playgrounds and corridors of the building. On special occasions the patrol furnishes the ushers or the guard of honor. In a nearby school the safety patrol is reduced to lowest terms consisting of half a dozen eighth-grade boys who help little children over the crossings nearest the building. This school, however, develops the working out of safety plays and games as a class exercise and it is seldom that one fails to discover a group of pupils from one room exhibiting their play or game in another room of the school. A third school specializes in safety posters, displaying great ingenuity, for example, in making cuts from well-known magazine advertisements to point a moral, or adorn a safety tale.

How much can be expected from these efforts is problematical. On the one hand, there is, especially for the city dweller, that overpowering mechanizing and electrification of the world that has come upon us faster than our ability to make organic response. On the other hand, there is the concerted movement in

industry to look upon the safety factor as legitimate. When the present generation of school children, trained to safety habits, shall have entered industry, possibly we shall see substantial progress toward fire and accident prevention. In this as in so many fields the hope of the future lies in the next generation.



## PART IV

### THE PRINCIPAL AND EDUCATIONAL ACCESSORIES



## CHAPTER XX

### CURRICULUM MAKING IN LOS ANGELES

MARY L. FLOYD

*Principal, Selma Avenue School, Los Angeles, California*

**P**ROBABLY THE MOST outstanding work of the year in which the entire teaching force of Los Angeles had a part was making the present curriculum. Miss Ethel I. Salisbury was appointed director of the Course of Study and realizing the great value to the workers, immediately started the whole teaching force thinking and working in a truly democratic manner.

She appointed an Alpha Committee of one supervisor and five principals as a general supervising and advisory committee, a Beta Committee of eighteen supervisors, principals, and teachers to take charge of a grade each, they in turn choosing ten for each of the different subjects and these enlarging their committees so that practically every principal and teacher was on some committee. For months meetings were held by the different chairmen for discussion of the underlying principles of education after which papers and outlines were written. The course of study was the main topic taken up by the different principals at their own building meetings.

When the work was begun, Miss Salisbury formulated about fifty general principles, which were kept in mind whenever the different topics were being considered. They were as follows:

1. The first task in the business of curricula construction is the formulation of principles that shall control the work. This is necessary in order that all participants may have a common point of view.

2. Democratic procedure demands that all those who have a responsibility for carrying out the recommendations of the Course of Study should have an opportunity to participate in its formulation.

3. The aim of all education is increased ability on the part of the individual to grow.

4. Growth can be measured only in terms of change of behavior.

5. Those human traits (habits and skills, attitudes, abilities and forms of knowledge) which enable the adult individual to grow or continuously improve in behavior constitute the ultimate specific objectives of education.

6. Progress toward an ultimate objective on the part of an individual is made by attaining many immediate objectives: habits and skills, attitudes, abilities, and forms of knowledge which enable the child at his stage of development to grow.

7. Progress toward all objectives is individual and is recorded in simple elementary abilities.

8. Individuals differ in the degree of efficiency with which they can accomplish these objectives.

9. These differences are due to heredity, social environment, and previous training.

10. An individual should make progress in accordance with his capacity.

11. Scientific studies show that there is very great overlapping of mental abilities in adjacent grades.

12. The grade is a term which has not meant any particular range of mental abilities. The Course of Study should be based on the following mental age standards for the grades.

MENTAL AGE STANDARDS FOR THE DIFFERENT GRADES<sup>1</sup>

Grade	Standard Mental Age	Mental Age at Mid-Grade
I	6-6 to 7-5	7 years
II	7-6 to 8-5	8 years
III	8-6 to 9-5	9 years
IV	9-6 to 10-5	10 years
V	10-6 to 11-5	11 years
VI	11-6 to 12-5	12 years
VII	12-6 to 13-5	13 years
VIII	13-6 to 14-5	14 years

<sup>1</sup> See Intelligence Tests and School Reorganization. Terman, Southernland, Franzen, Tupper, Fernald.

13. For administrative reasons and for social purposes, children should be graded into homogeneous groups for the major part of their instruction.

14. A limited range of mental abilities among individuals within a group simplifies and improves instruction.

15. In determining the groups, the following data are essential:

- (a) Physical condition.
- (b) Social environment.
- (c) Chronological age.
- (d) Mental age.
- (e) Intelligence quotient (Mental age  $\div$  chronological age).
- (f) Educational age (Age corresponding to educational tests performances).
- (g) Education quotient (Educational age  $\div$  chronological age).
- (h) Accomplishment quotient (Educational age  $\div$  mental age).

16. The data in No. 15 are important in predicting the type of adult occupation possible for an individual.

17. These data and the judgment of the teacher and principal should be the chief basis for grouping.

18. The curricula for any given group should recognize the vocational possibilities of that group.

19. There can be no growth apart from the self activity or experience of the individual, hence no education.

20. The Course of Study should recommend only those activities which point definitely toward educative outcomes or objectives.

21. One experience may contribute to the realization of several educational objectives.

22. Many experiences may be necessary to accomplish one objective.



23. That experience is most educative which leads the individual through interest into other educative experiences which modify behavior for social good. (Social good includes individual well being.)

24. In the primary grades, artificial lines of cleavage between subjects should be abandoned.

25. Progress can be made toward this by the use of more inclusive divisions of content and activities. The effect of the activities is checked in the desirable educative outcomes.

26. In the intermediate and upper grades, the Course of Study should be formulated along the lines of the major types of content—namely: subjects, “but there is a distinct tendency to extend upward the primary school practice of ignoring the artificial boundaries between subjects which in daily life are not ordinarily differentiated.”—Frank McMurtry.

27. Habits of concentration and sustained interest are not developed by a program which demands constantly abrupt changes from one activity to another. As far as possible, these should be avoided by guiding the child into the experiences which will result in the largest number of educative outcomes possible. An ever-increasing interest span is an important outcome.

28. An activity pointing toward the realization of several specific desirable outcomes will bring together in a meaningful way several types of subject matter. This will permit a telescoping of the overcrowded curriculum.

29. The child activities by which the objectives or outcomes are to be accomplished should be characterized by short interest span for the young child, with gradually increasing length of interest span for the older child.

30. Instruction in the primary grades should develop wholesome spontaneity of expression.

31. Freedom of expression should be limited by a consideration of the rights of others.

32. Overemphasis of technique in any subject in the primary grades tends to destroy expression.

33. All instruction should begin with the immediate interest and activities of the individual.

34. The activities for the young child should involve the coördination of the larger muscles.

35. The activities of the more mature child may include finer adjustments.

36. The child should have a purpose in each of the activities into which he is directed, except in cases of biological movement, such as manipulation.

37. His purpose will often involve a consciousness of and responsibility for the educative outcomes. Example: writing a word several times so that he may be able to spell it.

38. His purpose will sometimes involve no consciousness nor responsibility on his part on the educative outcomes of the experience. Example: listening to a beautiful record or enjoying a picture.

39. An activity is non-educative when it gives only practice of a skill or habit which has already been established.

40. A child should rarely be directed into an activity for which the only justification in his mind is a remote reason assigned by someone else.

41. A child must be “for” an activity if it is to be of maximum educative value.

42. Activities of the young child should be predominately physical.

43. The relative number of mental adjustments required may increase with the increased mental maturity of the child.

44. "One of the main pegs on which education hangs is curiosity."

45. All instruction should take into account the following laws of learning:

The law of Readiness—"When a bond<sup>1</sup> is ready to act, to act gives satisfaction and not to act gives annoyance. When a bond is not ready to act, to act gives annoyance and not to act gives satisfaction."

The law of Effect—"When a modifiable bonds acts, it is strengthened or weakened accordingly as satisfaction or annoyance results."

The law of Exercise—"When a modifiable connection is made between a situation and a response, that connection's strength is, other things being equal, increased." "When a modifiable connection is not made between a situation and a response during a length of time, that connection's strength is decreased."

The law of Set—"When desire operates to produce in the mechanism of the individual an adjustment toward a certain end this adjustment persists until the end is achieved."

46. One of the most important aspects of instruction is teaching children how to study.

47. There are many problems incident to the making of curricula which should be solved by methods of research. For example:

(a) What is the "reading age" necessary for the satisfactory use of each of the state texts and supplementary books employed in the city schools?

(b) What is the mental age at which the study of number may be introduced most economically?

(c) What is the effect of visual aids upon efficiency in instruction?

(d) What are the relative values of different methods of instruction in various subjects? Oral spelling and written.

(e) What are the sociological problems revealed in the current literature about world conditions today which suggest the necessity of specific attitudes and abilities which should be developed in the adult citizen of tomorrow? Relationship of workers? Distribution of products?

(f) What is the effect of size of class upon efficiency in instruction?

(g) What are the comparative outcomes of teaching geography, history and civics as separate and distinct subjects and combined into an elementary sociology?

(h) What are the relative effects on behavior of the study of civics and the participation in the Boy Scouts or Civic Clubs?

(i) What are the relative outcomes of groups and individual instruction and a combination of the two?

(j) What are the books that are best adapted to use with foreigners?

(k) What are the effects of transiency upon efficiency in learning?

(l) What the the causes of failures in school?

(m) What are the relative merits of instruction under the departmental plan compared with instruction when one teacher is in charge of all subjects?

Blank forms about every subject in the course were sent to each principal for distribution among his teachers to get their reactions.

<sup>1</sup> A bond is the connection between stimulus and response.

# FORM USED IN SECURING THE REACTION OF THE TEACHING AND SUPERVISORY STAFFS TO THE PRINCIPLES OF THE VARIOUS SUBJECTS

## DEPARTMENT OF COURSE OF STUDY

To Teachers and Supervisors of.....	
1. ....	In order that the Course of Study for
2. ....	.....
3. ....	may be based upon principles to which
4. ....	the staff is generally committed, those
5. ....	on the attached sheets are offered for
6. ....	consideration.
7. ....	Using this page for the report, please
8. ....	write "yes" after the number correspond-
9. ....	ing to the numbers of the principles with
10. ....	which you agree and "no" after the num-
11. ....	bers corresponding to those with which
12. ....	you disagree.
13. ....	A teacher should not make reply on
14. ....	those statements which do not concern
15. ....	her grade.
16. ....	Append additional principles which
17. ....	you have to suggest on the back of this
18. ....	sheet.
19. ....	Hand this sheet to your principal.
20. ....	The principals will return all sheets
	to

ETHEL I. SALISBURY,  
708 Security Building.

These were tabulated and their results set down under the different subjects and given to the teachers in a little pamphlet called "Principles on Curriculum Making."

The following illustrates one subject, English Expression:

1. In life, the need for oral English is greater than the need for written English.

2. We learn to speak by speaking. Rules of grammar have little influence on the formation of speech habits, though they may help a mature student to correct bad habits.

3. In order to talk or write well, it is necessary to have something to say. Children should be given the greatest possible number of enriching experiences and be permitted frequently to choose their own topics for composition.

4. Children should learn that there is no value in vain repetitions. They should be taught to say what they have to say as clearly and effectively as possible, and then stop.

5. Criticism should be constructive and aim to give children standards by which they may evaluate their own work.

6. It is of the greatest importance that children have a sincere desire to improve their habits of oral and written expression.

7. Effective teaching of English gives children both the technique of good speaking and writing and the desire to improve.

8. Oral expression should be the major part of the English expression in the primary grades.

9. The first goal to be reached in oral English in the primary grades is freedom and joy in expression.

10. After freedom and spontaneity are achieved, there should be specific progress in the use of correct forms, accuracy of expression, and extended vocabulary.

11. The consideration of form should be secondary to the consideration of the value of that which is expressed.

12. Special drills on correct forms and idioms through games are valuable language experiences.

13. The study of forms should be made in connection with their applications and as a result of a need for expression.

14. Because English is a Social Subject, the best results are obtained by socializing class work as much as possible.

15. To be truly effective, the results of English teaching must "carry over" into the child's life outside the school.

16. Children should learn from experiences that the way to hold interest is to have something to say and to say it well.

17. Children should learn to listen with two questions in mind: Is the thought clear? Is it well expressed?

18. Children should find the weaknesses in their own words by comparing it with that of others and with accepted objective standards.

19. When a child has found his weak points, he should endeavor to overcome them by drilling himself along the line of his needs and noting his progress.

20. Children should be led to observe how an ability to use the English language in a masterly way widens one's sphere of influence. Many instances may be found in History and Literature, as well as in everyday life.

21. A rich vocabulary is necessary for adequate expression and understanding. Children should form the habit of adopting and using new words which fit their needs.

22. It is the object of the public school to train toward a mastery of English adapted to everyday needs. The talented child, however, should be encouraged to develop his superior ability through special projects.

23. The school paper is a valuable project in English for the upper grades.

24. In all composition, the emphasis should be laid upon quality rather than quantity.

25. Much uncensored written work in other classes defeats the purpose of the English class in composition training.

26. A child who is apparently deficient in the "sentence sense" is often only indifferent because he does not see that training in English is of any use to him.

27. If clear thinking and adequate expression are demanded in all school exercises, there will be less trouble with the "sentence sense."

28. In the art of conversation, two primary essentials are courtesy and tact.

29. A really delightful conversationalist seldom indulges in monologue.

30. Hearing literature which is interesting to him read by someone who is interested in both the literature and in him is an experience which lays up treasures in the mind of the child and furnishes the substance of which his ideals are made.

31. The dramatization and reproduction of material from a new point of view are valuable language experiences.



The Course of Study was then made in each subject and for each grade using these principles as the basis.

As soon as the Course of Study was issued principals and teachers were asked to make suggestions, for it was realized that a course, be it ever so good, could never be made one for all, but must be made over as soon as finished. In order to systematize the revision, a permanent committee consisting of three supervisors, five principals, five teachers, one psychologist, and three school counsellors was organized to meet the Director once a week to discuss any problem of the teachers relative to the Course of Study and to work out ways of unifying the work of the different departments.

The two great objectives have been: (1) To have every principal and teacher have a part in making the curricula, not perhaps in actual outlines, but by suggesting some activity he has found successful or by telling his reaction to different plans presented. (2) To interest every one in the course as a whole so as to understand one another's problems and also to see how his work fits into the whole.

## THE PRINCIPAL AND THE BUILDING OF THE COURSES OF STUDY

COURTLAND V. DAVIS

*Principal, J. E. B. Stuart School, Norfolk, Virginia*

THE CONSTRUCTION of a course of study has come to be a highly technical piece of work. It was not always so. In times not long past courses of study have been builded upon purely subjective ideas of what the pupil at a certain stage of his development should have. These ideas have been most often based, it is true, upon the wide experience of the builders, but they have been, nevertheless, the result of the experience of, at best, but a few experienced educators, and that experience only as it has left a subjective impression. In those days, the principal, most frequently being the most widely experienced of any of the school staff, played an important part in the writing of the courses of study. Today, being most frequently the best trained member of the school staff, the principal is again called upon to provide the leadership and direction for the accomplishment of this now highly technical task.

It is not the province of this paper to outline the processes by which that task may be accomplished nor to recount the advances made in scientific curriculum construction, but to indicate, in

brief fashion, the part which the principal should play in the construction of local courses of study and to recount the part which one group of principals played in one such situation.

The school principal stands in very intimate relation to the instruction in his school. While not actually engaged in the immediate processes of instruction yet it is his influence that dominates the teaching situation. So generally is this conceded that the statement "As the principal, so the school" has come to have even wider currency than the older statement from which it was adapted. This relationship of the principal to the instruction in his school is the same as that of the principal to the course of study. In other words, while the actual writing of the course of study may be done by others, yet it is the principal who should provide the trained technical skill and professional insight for the direction of the work and the bringing together of the various contributions into a smoothly working, harmonious whole.

In most cases the principal is one of a group comprising all the principals of a local school system and the general direction of the building of the course of study for the system becomes the responsibility of this group. This responsibility should be taken cheerfully and readily when offered and should be sought when not offered, even to the point of initiating as well as directing the entire work. In point of fact it is quite probable that movements looking to the building and revision of courses of study are in most instances initiated by principals' organizations. But the difficulty lies in getting them to see the necessity of carrying through to a successful completion the work thus initiated. The tendency has too largely been to leave the work entirely, or in large measure, to the superintendent's office.

Aside from aiding in the general direction of the work in the principal's organization, the individual principal should also take an active part in the general work of writing the courses of study, either as chairman or ex-officio adviser of one or more committees of teachers at work on the various subdivisions of the task. Here again his highly specialized training will be the prime factor in directing and guiding the technical matter in hand.

Another important field of activity for the principal in the building of the course of study is in the development of proper teacher attitudes to the business upon which all are working. He will keep his staff informed of the progress of the work at every stage. He will encourage and assist those members of his staff who are working on curriculum problems in the various committees. By his attitude in teachers' meetings he will make

the teachers feel the importance of the task in which they are engaged. He will give special recognition, by means of the bulletin board and in other ways, to those of his teachers who are doing outstanding work in committee. He will lend every assistance which the resources of his plant afford to teachers who are carrying on classroom experiments in connection with curriculum problems. He will make the teachers feel that the problem of building the courses of study is their problem and that he is keenly interested in the work which they are doing.

In the continuous and never completed process of revising and rebuilding the courses of study the principal should keep the purposes of the curriculum clearly before him and make note of every change which will make possible the achievement of those purposes more readily or more completely. Controlled experiments and thoroughly objective statistical data should be used wherever possible to verify the value of the changes suggested, and they should then be presented with the verifications made to the principals' group. After careful study this group should send the suggestions with its recommendation to the superintendent for incorporation in the courses of study for the system.

Norfolk found itself in the fall of 1922 very much in need of a thorough-going revision of its courses of study and accordingly undertook the work of rewriting, enlarging, and bringing up to date the courses for the entire system. The things which made the need of revision necessary need not be recited here. Nor is it necessary to attempt an evaluation of the methods of building the courses except in so far as is desirable in bringing out the relationship and activities of the principals in the work. Suffice it to relate here the part taken by the principals and the way in which their work fitted in with the outline given above.

The first question to come before the principals' group was the occasion of no little discussion. At the instance of the superintendent a general committee which was to be responsible for the entire project and which was to plan the work, organize it, direct it, and bring the final results into harmony, was to be formed. It was agreed that one half of this committee should be teachers and one half principals. But on the size of the committee came the wide variation. It was considered a matter of great importance at the time and is given prominence here because of the effect which it had upon the attitude of the principals and upon the extent of their participation in the work. It was finally concluded to form the general committee of such a size as to include about one half of the total number of principals in the system.



These principals being actively engaged in the building process, being, by reason of their place on the committee cognizant of all the varied lines of activity being carried forward and directed by the committee, and being in large measure responsible for the results to be achieved and for the leadership in the work of the general committee, were in much better position to carry out the suggestions dictated by proper professional spirit and training than were the principals who were not on the committee. It is now realized that a mistake was made in not having every principal actively engaged in the process of developing and crystallizing the course of study. The men actually engaged in working with the material at the white heat of the formative process are, as of necessity they must be, more interested in it, better acquainted with it, and better able to administer and supervise it, than those whose contact was not so close. In the account of the principal activities that follows it will be understood that in considerable measure these activities were, and could only have been, on the part of those actively engaged in the building of the courses of study, though to some extent, of course, participated in by all. It will be further understood that this is not the account of the work of any one principal but of the various things done by various principals.

Following the organization of the general committee various tasks were parcelled out to the sub-committees made up of members of the school staffs who were not members of the general committee, although in each instance the sub-committee was headed by and reported through a member of the general committee. Principals were, in most instances, chairmen of these committees and furnished the active leadership in the peculiar functions of their several committees. Principals directed most of the experimental work and furnished the technical skill for the handling of the statistical problems involved.

In the principal's own school his opportunities were many. He made a list of all the teachers of his school who were on sub-committees, and held frequent conferences with each. He cited to them various readings from the field of professional writings bearing upon the subject. Frequently his own professional library was called upon to supply material not available elsewhere. He set up and directed controlled experiments, working out plans for the committees which his teachers represented. He encouraged timid teachers to stand boldly for what they knew to be professionally right. He bulletined important achievements of the members of his staff. He led in building the course of study, since he should lead in all professional activities.



## CHAPTER XXI

### THE ELEMENTARY SCHOOL LIBRARY

AYMER JAY HAMILTON

*Supervising Principal, University Elementary School and  
Lecturer in Education, University of California*

MANY years ago when the writer was a small boy there was little need in the schools of a certain populous industrial State of our country for a library. The daily diet for six long tedious hours each day for six months consisted of a diagrammatical study of such sentences as "The wages of sin is death," with long argument as to whether or not the biblical translation shouldn't have substituted "are" for "is"; spelling columns of words the meanings of which were unknown to all save Webster and the expert in whose particular field they were found; repeating verbatim page after page of narrative history about how Lee's left wing was broken by Grant after six long wearisome hours of struggle through rain and sleet, and how the right wing was bent but able to hold its position till relieved by Buell, and how the center stood its ground till darkness came on when both armies pitched camp and decided "to fight it out on this line if it took all summer"; solving such practical (?) problems as, "If the head of a fish was one half as long as the tail and the body was as long as the head and tail plus 10 inches and the tail was as long as the head plus 5 inches, how long was the fish?; or what is the area of the space at the intersection of three grindstones if they are respectively 14, 18 and 24 inches in diameter; naming all the bones and muscles in the body, and describing the alimentary canal and the action of each juice found therein on the various kinds of foods; bounding each State and naming its capital and principal city; answering such questions as, How long is the Amazon River? Where is Cape Hatteras? and What is Timbuctoo? We repeat, there was absolutely no use for a school library there, for the answers to all these were to be found in the text and it required all our waking hours to commit to memory the assignments and repeat them to the teacher during the "recitation period." And we passed or failed depending upon whether or not the questions were worded cleverly enough to call up in us the right associations. Of course teaching is not done that way now anywhere—or is it?

In most schools today there is positive need for a library—not a few books of fiction—but a library in which are found the

better books in all fields of human experiences. Teaching from the natural method, that is, allowing children to work on problems or projects that are of interest to them and attacking their problems in the same way that adults do in their world, requires as one of the most important factors next to a well-trained, sympathetic teacher, a well-equipped library. However, before proceeding to the main purpose of this paper—namely, the organization of a well-equipped library and its functions in an elementary school—it will be necessary to state briefly the organization and purpose of the school in which this library functions in order to assure the reader that the conditions are not unusual.

The University Elementary School, of Berkeley, is a typical California public school with few unusual advantages and subject to all its limitations. It is maintained by the City of Berkeley in the same manner that it provides for its other schools, except that the city is not required to pay the salary of the supervising principal. There is a budget allowed by the University of California out of which comes the principal's salary, the salary of a secretary, a small bonus to each teacher, leaving a nucleus for the purchase of some equipment not furnished to the other city schools. The school has an enrolment of about 225 pupils. It has a kindergarten and six other rooms in which are grades one to six inclusive. In each room under one teacher are two sections, the low and high divisions. No departmental work is done except that manual training and home economics are each taught by teachers who work one day each week in the school dividing the rest of their time between two other schools.

The distribution of intelligence is fairly normal, ranging from two children with I. Q.'s of 75 to one with an I. Q. of 160; the curve being skewed a little towards the upper level. The social efficiency distribution of the parents is as nearly normal as the intelligence curve of the pupils, ranging from unskilled labor to the highly trained professional expert.

The purpose of the school is to provide classes in which are demonstrated the most modern approved methods in elementary education, in order that graduate students in the Department of Education who are interested in elementary education may have an opportunity for observation.

*Library*—The room used for library purposes is a small classroom 22 x 30, well lighted by windows on the east and west sides.

There is blackboard across the south end and partly across the north end. There are six double face cases, placed at right angles to the wall, each 54 inches high and contain 5 shelves on each side, each shelf being 36 inches long, 10 inches high, and 8 inches deep, thus providing for approximately 2000 books. Beside the books listed below, the room is equipped with 40 small dictionaries, one unabridged dictionary, one set of Keystone stereopticon pictures, and 36 stereopticons. There are three glass cases each 72 inches long, 47 inches wide, and 18 inches deep for displaying the hand work of the children; tables and chairs sufficient to care for 35 children; a librarian's table and filing cabinet for card indices of the books by authors, by titles, and for an annotated bibliography suitable for elementary school work; and one large floor globe.

The classification of the books is necessarily a simple one but is sufficient for the natural expansion of elementary school work. The following is the classification with the corresponding numbers:

#### 100 GEOGRAPHY

- 110 Home and Child Life in Many Lands
- 120 California
- 130 North America
- 140 South America
- 150 Eurasia
- 160 Africa
- 170 Australia and The Pacific
- 180 Special Geographies (Industries)
- 190 Geography Textbooks

#### 200 HISTORY, CIVICS, BIOGRAPHY

- 210 Primitive Peoples for Little Folks
- 220 California
- 230 United States
- 240 Background of American History
- 250 Biography
- 260 Civics and Government
- 270 Holidays
- 280 Heroes and Events

#### 300 NATURE STUDY

- 310 Animals
- 320 Birds
- 330 Insects
- 340 Sea Life
- 350 Plant Life
- 360 Rocks and Minerals
- 370 Sun, Moon, etc.
- 380 General Nature Study
- 390

## 400 LITERATURE

- 410 Prose
- 420 Poetry
- 430 Plays
- 440 Collections
- 450 Supplementary Readers
- 460 Fairy Tales
- 470 De Luxe Editions, etc.
- 480

## 500 THE FINE ARTS

- 510 Art
- 520 Music
- 530

## 600 GENERAL REFERENCE

- 610 Dictionaries
- 620 Encyclopedias
- 630 Atlases
- 640 Mathematics
- 650 Mechanics, etc.
- 660 Physical Education
- 670 Visual Education

The question of order and quiet was solved by the pupils themselves. They soon found that unless something was done they would be unable to do the necessary work in the room incident to the successful completion of projects undertaken by the class. Some children were noisy, careless, and destructive; consequently the pupils soon proposed that a committee be appointed to draw up a set of rules to be presented to an assembly of the children for their consideration. From the report of this committee the following rules were finally accepted and found sufficient to insure a satisfactory working atmosphere.

*Rules for the library*—1. The library will be open from 8:30 until 3:30 every school day.

2. The library is for every child in the University Elementary School who wants to use it.

3. Each child may have two cards, one for non-fiction and one for fiction.

4. There will be a librarian from the sixth grade who will help any child to find books. This librarian will also keep the library in order and see that all rules are obeyed.

5. There must be perfect silence in the library. If anyone makes unnecessary noise, he will not be allowed to use the library for two weeks. If he keeps on being noisy, he may not come into the library for the rest of the term.

6. Books may be kept for two weeks. If they are kept longer a fine of one cent a day must be paid.



7. If books are soiled or torn, a fine of ten cents must be paid.
8. All books lost or defaced must be paid for.

In an elementary school the problem of providing satisfactory librarian service is a real one, for cities have not as a regular custom found their way clear to engaging a trained person for this work. Money spent for the services of a trained librarian would yield as great or greater returns to the social efficiency of the children than that spent for the usual teacher. Any school could well afford this extra expense even at the sacrifice of smaller classes. Of course, if your city is one where the classes are now as large as forty-five and fifty children, the above statement would be debatable.

In the absence of a librarian we have been able to make efficient use of the library by placing it under the direction of the sixth-grade teacher and pupils. The sixth-grade children are instructed in the organization of the library until they know where to find the various types of books and are able to understand the charging system. Each child in turn acts as librarian for one half day. This results, of course, in each child, since there are thirty children in the sixth grade, being absent from his regular class work one half day, approximately, every two, weeks, but the development in his attitude of service, the increased ability in the use of reference works and the wider knowledge of facts and the contribution a library makes to one's social efficiency greatly overbalances any loss sustained through absence from class work.

*Book selection*—The selection of books for use in an elementary school library is by no means the least important function of the school faculty. If a library is to serve efficiently such teaching procedure as is described later on in this article a great deal of care and thought must be given to the selection of books the content of which will contribute to such activities. The list will no doubt vary in different localities depending upon the course of study but more particularly upon the interests of the children. The following list of books serves our needs very well, and single copies of all books on the list may be purchased for approximately \$1000. It is, however, necessary to have more than one copy of some. In our situation we find that one copy is sufficient, while in others we need two or three, and sometimes as many as thirty-five. Consequently, the actual number of books in our library is about twice the number on this list and cost \$1876.

# LIST OF BOOKS IN THE CHILDREN'S LIBRARY OF THE UNIVERSITY ELEMENTARY SCHOOL

- Aitch, N. H. .... The Golden Book of Favorite Songs.  
 Aiton, George .... Autobiography of Benjamin Franklin.  
 Albert, Virginia .... Peter Rabbit and Sammy Squirrel.  
 Alcott, Louisa M. .... Little Women.  
 Allen, Nellie B. .... Asia.  
 Allen, Nellie B. .... The New Europe.  
 Allen, Nellie B. .... South America.  
 Allen, Nellie B. .... United States.  
 Alshouse, Herman .... Heroes of the Nations.  
 Amicis, Edmonds de. .... Heart of Boyhood.  
 Andersen, Hans .... Andersen's Fairy Tales (Rhead, Il-  
     lustrator).  
 Andrews, Jane .... Ten Boys.  
 Andrews, Jane .... Seven Little Sisters.  
 Arnold, Emma J. .... Stories of Ancient Peoples.  
  
 Babbitt, Ellen C. .... Jataka Tales.  
 Babcock, Bernie E. .... Story of Frances Willard.  
 Bailey, Carolyn Sherwin. .... Hero Stories.  
 Bailey, L. H. .... The Holy Earth.  
 Bailey, Florence M. .... Handbook of Birds of the Western  
     United States.  
 Baker and Thorndike .... Everyday Classics: Primer and 1st  
     to 5th.  
 Baldwin, Charles W. .... Geography of the Hawaiian Islands.  
 Baldwin, James .... Conquest of the Old Northwest.  
 Baldwin, James .... The Discovery of the Old Northwest.  
 Baldwin, James .... Fifty Famous Rides and Riders.  
 Baldwin, James .... Baldwin's Readers: Second Year.  
 Baldwin, James .... The Fairy Reader.  
 Bandini, Helen Ellicott .... History of California.  
 Bantock, Granville .... Sixty Patriotic Songs of All Nations.  
 Barber, Grace Edson .... Wagner Opera Stories.  
 Bass, Florence .... Stories of Animal Life.  
 Bass, Florence .... Stories of Plant Life.  
 Beard and Bagley .... A First Book in American History.  
 Beard and Bagley .... Our Old World Background.  
 Bennett, John .... Master Skylark.  
 Bennett and Haniphy. .... Historical Readings.  
 Best, Susie M. .... Glorious Greece and Imperial Rome.  
 Best, Susie M. .... Egypt and Her Neighbors.  
 Best, Susie M. .... Merry England.  
 Best, Susie M. .... Nations of Western Europe.  
 Bergengren, Ralph .... Jane, Joseph and John.  
 Bigham, Madge A. .... Mother Goose Village.  
 Bigham, Madge A. .... More Mother Goose Village Stories.  
 Bishop, J. B. .... Theodore Roosevelt's Letters to His  
     Children.  
 Blaisdell, Mary Frances. .... Twilight Town.

- Blaisdell and Blaisdell .....Child Life: A First Reader.  
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- Verrill, A. Hyatt .....Harper's Wireless Book.
- Vizetelly, Frank H. ....25,000 Words Frequently Mispro-  
   nounced.
- Wade, Mary Hazelton .....Our Little Armenian Cousin.
- Wade, Mary Hazelton .....Our Little Cuban Cousin.
- Wagner, M. H. ....Autobiography of a Tame Coyote.
- Wagner, Harr .....Pacific History Stories.
- Wagner and Keppel .....Lessons in California History.
- Walker, Margaret Coulson .....Our Birds and Their Nestlings.
- Waldo, Lillian M. ....Safety First for Little Folks.
- Warren, Maude Radford .....Little Pioneers.
- Warren, Maude Radford .....Manabozho, the Great White Rabbit.
- Washburne, Marion F. ....Indian Legends.
- Waterloo, Stanley .....The Story of Ab.



Wayland, John W. ....	History Stories for Primary Grades.
Webster, Hanson Hart .....	Americanization and Citizenship.
Webster, Noah .....	New International Dictionary.
Wells, Margaret E. ....	How the Present Came Out of the Past, Books I and II.
Wesselhoeft, Lily F. ....	Laddie, the Master of the House.
Wheeler, M. L. and W. C. ....	The War of the Wooden Soldiers.
Wickes, Frances G. ....	A Child's Book of Holiday Plays.
Wickes, Frances G. ....	Happy Holidays.
Wiemer and Jones .....	Chats in the Zoo.
Wiggin, Kate Douglas.....	Rebecca of Sunnybrook Farm.
Wiggin, Kate Douglas.....	The Birds' Christmas Carol.
Wilson, L. L. W. ....	A History Reader for Elementary Schools.
Winston, John C. ....	Winston's Complete Atlas of the World.
Winterburn, R. V. ....	The Spanish in the Southwest.
Wright, Blanche Fisher .....	Polly Flinders.
Wright, Blanche Fisher .....	Little Jack Horner.
Wright, Julia M. ....	Seaside and Wayside Books; Books I, II, III, IV.
Wyeth, N. C.....	Poems of American Patriotism.
Yard, Robert Sterling .....	The Top of the Continent.
Ziegler, Samuel and Jaquette.....	Our Community.

*Some contributions of a library to modern school procedure—*

A library makes possible many natural activities that keep children working up to the limit of their mental capacity. Without it the work would be a humdrum grind that would fail to interest the most capable children, from whom society gets and has a right to expect the greatest contributions.

Of course among the most apparent services rendered by a library is the convenience of having at one's hand reference works in which are found content that will aid in any usual ordinary activity carried on from the old-time bookish method of teaching.

More important is the opportunity for abundant material for appreciation lessons in the field of literature. No one textbook, no matter how worthwhile the literary selection, can be inclusive enough to supply the material needed. Nor is there to be found a set of readers containing selections long enough to give training in appreciation of literary material in its original form. Children should be taught to read abundantly books in the original and not merely selected portions.

In line with the above activity a library makes possible the formation of a Reading Club in each class in which the qualification for membership may be the development of certain

abilities in reading, contributions to the class in oral reading sufficiently interesting to meet certain standards agreed upon by the class, the completion of and reports upon so many books from a list in various fields of human experiences that have been selected by teacher and class as acceptable literature.

Without the abundant reading material that is provided by a library in the school plant, one could not develop in the children the reading outcomes that are desirable and acceptable by good modern schools. These may vary somewhat in their language, depending upon who has stated them, but in the main, they have much the same content. The following taken from the list set up by the Faculty of the University Elementary School will make clear the problem and the hopelessness of meeting it satisfactorily without abundant reading material in many fields of experiences and organized in library form.

## SIXTH-GRADE OUTCOMES AND SOME ACTIVITIES THROUGH WHICH THE OUTCOMES MAY BE ATTAINED

### I. Outcomes

#### 1. Knowledge

- a.* Of the proper care of books
- b.* Of how to find a book in a library
- c.* Of how to use reference works
- d.* Of good social usage in a library
- e.* Of the content of many books in many fields of experience

#### 2. Abilities (Habits or Skills)

- a.* Ability to read silently without lip movement
- b.* Ability to read orally with well modulated tones
- c.* Ability to read orally without stumbling material within the child's comprehension
- d.* Ability to comprehend accurately reading material within the range of the experiences of a normal child
- e.* Ability to answer simply stated relevant questions about what is read
- f.* Ability to state a central thought of a paragraph of material within child's comprehension
- g.* Ability to read and follow directions
- h.* Ability to read a poem in a way to see its beauty and bring out its music
- i.* Ability to interpret simple selections through dramatization
- j.* Ability to find statements of cause
- k.* Ability to find statements of effect
- l.* Ability to skim a selection and find an answer to a specific question
- m.* Ability to find various shades of meanings of the same word
- n.* Ability to find from many sources material that will aid in the solution of problems
- o.* Ability to use indices, reference books, guides, and the dictionary

- p.* Ability to recognize at once words, phrases, short sentences, which span of recognition should increase as the child grows older
- q.* Ability to think in sentence meanings rather than word meanings
- r.* Ability to visualize clearly word pictures
- s.* Ability to get essential thought of a selection
- t.* Ability to outline a story
- u.* Ability to find series of closely related points.
- v.* Ability to judge validity of statements.
- w.* Ability to form judgments
- x.* Ability to find descriptions
- y.* Ability to find in newspapers and magazines various types of content.

### 3. Attitudes

- a.* Development of an understanding and appreciation of poetry within the comprehension of the child
- b.* Development of the right attitudes towards contributing to the enjoyment of others
- c.* Development of an interest in wholesome humorous selections
- d.* Development of an interest in wide and varied reading—travel, history, biography, nature, science, literature, art, etc.—rather than an interest in a series of books
- e.* Development of right attitude toward good literature.

## II. Some Activities through which the Outcomes may be Attained

1. Interest children in good literature by having teacher or child read a chapter or two of some good book, then give the members of the class an opportunity to finish the book independently. Encourage pupils to search for books and have a contest to see who can read the greatest number of selections by one author. Pupils keep individual list of selections or books read.
2. Keep pupils in touch with varied types of reading, such as hero stories, Bible stories, travel, history, fiction, diaries and letters, biography, humorous stories, stories of art, and science. Call attention to authors, illustrators, etc.
3. Give definite suggestions and helps in regard to reading material, especially for pupils who are not interested in outside reading. Assign to individual pupils interesting short stories to be read at home for the purpose of telling or reading to the class. (The list for Recreational Reading will be found helpful in this connection.)
4. Divide the grade into groups. Assign a different author to each group. Children read aloud selections from assigned authors. Discuss same as to similarity, differences, etc..
5. Encourage pupils to draw books from the public library for project reading.
6. Discuss current events. Pupils make individual collections of newspaper clippings and magazine articles on current events, also on projects being studied.
7. Reading for Study
  - a.* Discover problems for study and investigation in connection with content subjects. Pupils given opportunity to read for a day or two to discover problems which should be studied in connection with a given topic.

- b. Find a series of closely related points—in difficult selections and material drawn from several sources. Statements carefully worded. Relationships clearly indicated by form of organization.
- c. Determine the relative importance of statements—in more or less difficult material—pupils required to discuss relative values freely and to criticize the organization and relative value of various parts of assigned material.
- d. Find answers to thought-provoking questions which are asked by pupils or teacher in relatively difficult assigned selections in material from various sources selected in part by pupils.
- e. Select facts which relate to a problem under discussion—in difficult passages and in material selected independently by the pupils. This requires training in looking up topics in textbooks and books of reference.

### Reading for Recreation

- a. Remember and reproduce material from several sources, organized and put in form for a coherent and clear-cut presentation.
  - b. Have pupils give their interpretation of any illustration and compare with the story of the author.
  - c. Have pupils compare characters in stories to those in life. Select chief characters and minor characters.
  - d. Discuss title—why has author chosen title? After reading part of story, lead children to suggest suitable titles. Show relationship between title and story.
9. Continue the training in care of books:
- How to open new books
  - How to turn pages
  - Proper way of placing on shelf
  - Use of book mark.
10. Teach meaning and use of footnote, marginal note, and cross reference if discovered in any material studied.
11. Arrange with librarian for class to visit school or public library for the purpose of studying the use of the card index, lists, etc.
12. Silent Reading
- a. Increase the amount of silent reading to the ratio of 70 to 30.
  - b. Extend the time for reading interesting stories to secure better rate.
  - c. Help pupils to recognize the difference between quick reading with slight attention to details and careful intensive reading, by training them to quickly scan a paragraph or page for the purpose of deciding whether its contents is worthy of careful study.
13. Oral Reading
- a. Encourage pupils to be alert in detecting errors in their own pronunciation and generous in helping others to overcome their errors.
  - b. Place a greater emphasis on word analysis and derivation of meaning.
  - c. Insist upon independent use of the dictionary when needed.



One of the most essential factors in teaching procedure from the standpoint of natural method is the library. The following problem<sup>1</sup> selected from the many under way in the school will serve to illustrate this point.

PROBLEM: THE RELATION OF SAN FRANCISCO BAY REGION TO THE  
REST OF THE WORLD

I. Motivation

A. Child-motivated through questions raised by children

1. What kind of problem shall we have this term?
2. Can't we have something entirely different?

B. Teacher-motivated

1. Suggestions of topics; *e. g.* Transportation, Commerce, etc.
2. Discussion of character of bay region
  - a.* Comparison with other ports
  - b.* Possibility of communication with all the world
  - c.* Deciding upon topic. "The Relation of the San Francisco Bay Region to the Rest of the World."

II. Deciding upon ways and means of solving problem

A. Dividing theme into sub-topics

1. Consideration of factors contributing to establishing world relationship
  - a.* Steamship lines
  - b.* Railroads
  - c.* Exports and imports
  - d.* Americanization
  - e.* Education

B. Deciding upon ways and means of reporting upon information gained.

1. Class divided into committees to work on topics
2. Maps planned to show information
3. Programs planned to be given by each committee to impart information

C. Sources of information

1. School library

- a.* Books supplied by library—Geographical Readers by  
Huntington  
Bowman  
Carpenter  
Allen  
Chamberlain
- b.* Supplementary geography texts  
Brigham and McFarlane  
Atwood  
McMurry and Parkins  
Smith

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<sup>1</sup> The writer is indebted to Miss Marie Kinell, teacher of the sixth grade in the University Elementary School, for the problem illustrating the natural method of teaching procedure. It has been abridged and shows only in a superficial way the great contribution made to the development of the group of children who worked it out under her direction.

## c. Other books

Compton's Pictorial Encyclopedia  
 The World Book  
 Book of Knowledge  
 Twin Series, by Lucy Fitch Perkins  
 How We Are Fed, by Chamberlain  
 How We Are Clothed, by Chamberlain  
 How We Are Sheltered, by Chamberlain  
 How We Travel, by Chamberlain  
 How the World is Fed, by Carpenter  
 How the World is Clothed, by Carpenter  
 How the World is Housed, by Carpenter

## d. Magazines in Library

Child Life  
 Asia  
 Junior Red Cross Magazines

## 2. Other Sources for book information

## a. Public library

Encyclopedias  
 Books on travel  
 Magazines

## b. Informational books brought from home

Stoddard's Lectures  
 Geographical Magazines

## 3. Correspondence

Replies from letters to consulates in San Francisco  
 Replies from letters to steamship lines  
 Replies from letters to railroad companies  
 Informational matter received from  
     letters  
     folders  
     magazines—commercial journals  
     commerce reports

## 4. Excursions

To Southern Pacific Building  
 To Tayu Maru Steamship

## III. Difficulties Encountered in Solving Problem

## A. In making maps

1. Overcome by using lines and drawing to scale

## B. In making of graphs

1. Overcome by deciding upon a uniform plan for graphing

## C. In discipline

1. Overcome by organization of grade club and making set of rules for school.

## IV. Hand construction

A. Miniature railway showing modern appliances in sand box

B. Floor project showing types of transportation both by land and water. *E. g.*, docks and warehouses—different kinds of cars (*e. g.*, oil tankers, freight cars, etc.), mechanical toy railroads being used.

## V. Conditions contributing to Natural Setting of Problem

A. Sending and receiving of real letters

B. Manipulation of materials

1. Sand box  
 2. Real toys

- C. Using of library as in real life
- D. Coöperative work of committees
- E. Group disciplining

## VI. Some Outcomes

## A. Geography

- 1. Course of study assignment finished

## B. Correlations

## 1. Reading

- a. Extensive reading in school and outside
- b. Interest in other subjects arouse through reading  
(*e. g.*, appreciation of art, music, etc.).
- c. Desire to study some topic in present term project  
(*e. g.*, Two boys who studied Education this time studying same topic in connection with each new country taken up.)
- d. Ability to interpret commerce reports

## 2. Language

- a. Ability to write business letters.
- b. Ability to reproduce orally information gained from books.
- c. Ability to conduct class meetings.

## 3. Arithmetic

- a. Ability to use figures of commerce reports
- b. Ability to draw scale

## 4. Civic

- a. Ability to work coöperatively
- b. Ability to work out rules of conduct for entire school
- c. Ability to recognize interdependence of nations
- d. Appreciation of California's and Berkeley's part in world affairs
- e. Appreciation of contributions of world to America and California.

This article would not be complete without giving one activity carried on by all the children who have access to the library and who are old enough to comprehend the content of informational books. On the librarian's desk is a supply of the following blank forms:

Topic	Sub-topic	
Author's last name	First name	Name of book
Book Number	Brief Description of article read (Not over 50 words)	
Volume		
Page; from — to —		

This blank is filled out by the pupil after completing his reading and passed to the librarian who copies it on a 3 x 5 card ruled in a similar manner and files the card in the cabinet containing an annotated bibliography covering subjects worked out by the teachers and pupils. This, it will be readily seen, makes possible in the absence of a trained librarian, the building up of a practical method of using the material at hand.



## CHAPTER XXII

### THE PUBLIC LIBRARY IN THE SCHOOL

CLARA MAYER

*Principal of the Milford School, Cleveland, Ohio*

IF ONE were to single out the agency that is the most helpful to the public schools in their work of educating the child, the public library would undoubtedly have that distinction. A library of some kind has now come to be recognized as an indispensable part of the school. The school library, owned and operated by the school, is valuable. However, its equipment and resources are necessarily limited, and thus its helpfulness is limited also. The public library, alone, is so equipped and maintained and operated as to be able to give the fullest assistance to the school in its great task of educating the youth of our land. And when this public library is rich enough and large enough to maintain branches in various parts of a city, and still other branches in the school buildings themselves, its usefulness is multiplied many times, and its chances for coöperation are ideal. With these visions of the possibilities and opportunities of a great library in a great city, William H. Brett, of beloved memory, set about to make the Public Library of Cleveland contribute in richest measure to the education of its people. The work begun by him, and ably carried on and extended by his assistant and successor, Miss Linda Eastman, is known throughout the library world of the country.

The public library branch, housed in a public-school building, is an integral part of the school, and furnishes, one may say, the foundation material with which teachers work in the education of their pupils. Given a room in which to work, shelves lined with books for reference and for recreation, and supplied with a librarian trained for the work, and with such assistants and helpers as may be needed, the school branch has unending opportunities for helpfulness.

Established, primarily, for the use of teachers and pupils, the branch is furnished with every sort of book likely to be needed—reference books, books for general reading, books on history, geography, biography, travel, art, poetry; pamphlets, magazines, mounted pictures, and books on education and pedagogy. At the same time, it may serve as a circulating library for the adult of the community. Necessarily the number of books to be found in any branch is limited. Between the main library and the

branch is a system of inter-loans. Requests for books and other material not in the school branch are sent to the main library by the school librarian. By a system of regular and prompt deliveries, these are supplied.

New publications are placed on the library shelves as rapidly as may be after they have been passed upon by the librarians, who have monthly or semi-monthly meetings at which new books are reported on and discussed. These are then quickly available for the school library. All necessary cataloging and preparing of books is done at the main library. Here, also, books are rebound. At the branches, a mender works, as needed, repairing books and keeping them in good condition.

Let us see one of the school libraries in operation, choosing the one with which the writer is best acquainted. This school is of moderate size, consisting of twelve hundred fifty children, and nearly forty teachers. The grades are from kindergarten to eighth inclusive. The children are mainly American or of Bohemian, German, or Hungarian extraction. The library room is a second-floor corridor connecting the main building with the annex, partitioned off, the partitions having wide glass doors inviting entrance. It is well lighted by many windows on two sides and furnished with ample artificial light. Every inch of wall space not taken up by the windows is lined with shelves to a suitable and convenient height. These are filled with books classified and labeled. Low benches run along under the windows. On a table in front of one of the windows are the large dictionaries. Conveniently near is the reference section. Near one end of the room is the desk of the librarian, and at the other end, the charging desk. Attractive bulletin boards, small but sufficient, call attention to new books, or seasonable, or, for the time being, popular or interesting topics. For instance, when the entire building, from youngest to oldest, was working out our "Cleveland" project, names of books in which articles on the subject were to be found, were posted, and pictures of Cleveland were displayed. When we are to have a lecture on birds, bird books are to be found in the racks on the window-sills, and pictures sketched by the artist-librarian are pinned on the display-boards. It is necessary only for a teacher to hint at a subject to be studied in geography, or history or travel, when, instantly, those books are placed where attention is called to them.

In order that the library may serve all to the greatest advantage, the librarian and principal have worked out a regular plan of procedure. A program of library periods has been made,

whereby the younger children are served in school hours, these periods being in the afternoon. So, at stated times, once a week, each class of the younger children comes to the library with its teacher. Some come for books to take home to read; some, for books to look into for a certain piece of information; and the very youngest for picture books to look over together and enjoy. The children appeal to the teacher or to the librarian for help in selecting a book, or for approval of the one already selected. It is a busy, happy, and sometimes exciting time. One may see, in the corner, by the shelves of picture books, bright-eyed little groups looking over pictures together and commenting on them; in another nook, a child reading quietly by himself; while other children content themselves with browsing around. At the circulation desk stands a line of children waiting to have their books properly stamped and charged. Everything is well-ordered, and cheery, and interesting.

At noon, and at the close of school in the afternoon, the older children are served. The place is then a beehive, but still orderly and quiet. At these times, three young pages, boys from the seventh grade, assist. They give further help in returning books brought in to their proper places on the shelves, and in keeping the shelves in order.

Another valuable use of the library room is for reference. At any time in the day individual children, or groups of children, come in to look up material, or for help in project work. Here is a group at the table, conferring with each other on the particular topic assigned them; there are some boys getting books from the shelves, and still others consulting with the librarian how best to get the help they need. During study periods, teachers and pupils come together, the teacher directing the children in their work.

The library is a magnet, drawing to itself even the little tots from the kindergarten, who spend happy moments sitting on the low benches, looking over picture books, examining the bulletin boards, or enjoying the fresh flowers always to be found on the window sill or on the librarian's desk.

None but a trained librarian, with ample resources at her command, can give the help needed and called for in a school library. A teacher may send for a set of books she desires to keep in her room for a week or more, or she asks for books on a certain topic. As soon as may be, the librarian assembles these, and a page delivers the books to the teacher. The teacher suddenly has need for a certain reference or quotation. It is forth-



with given her by the librarian. It is astonishing in how short a time one is served with the matter desired. Only one in possession of Aladdin's lamp could possibly serve so quickly. Books supplying material for silent reading, for dramatization, for supervised study, for auditorium assemblies, for lantern talks, for projects—all are at hand, or can be obtained within a day, from the Main Library. On a shelf, set aside for the purpose, are assembled books on the reading lists assigned the various grades. To these the children go to select what they wish. Special shelves are supplied with "Poetry," "Books for Boys," "Knights," "Animal Stories." The window sills may display the new books, and on the bulletin board, near at hand, are illustrations from those same books.

The librarian keeps in touch with the work of the school in various ways. She knows what subjects are being stressed, what topics are next to be taken up. She is acquainted with the needs of certain boys and girls and finds a way to supply them. She guides their reading, directs their thoughts into certain channels, surmises their problems, and is ever a good friend in time of need. Recently there was to be a lecture on Australia. By scores the children descended upon the librarian for help. Such a situation tests her wisdom and diplomacy, for she must distribute wisely and keep material moving. She must call upon the main library for supplementary helps—magazine articles and pictures. And she never fails one!

Then there are classroom talks and the story-hour. The talks are on books—the use of the book and its care, the development of books, and the art of printing. Ancient Chaldea and Egypt and Phœnicia are visited to gain an idea of early book-making, and early picture-writing and alphabets, and thus the great world of people from the earliest times passes before the child through the pages of his imagination. The story-telling hour is one of the delights to which the children look forward. Now it is fairy tales or folk lore; later, stories of knights and castles, of heroism and adventure. A taste of one of Scott's romances is given, or one of Dickens' stories. Whatever it is, the teacher and librarian abet each other in instilling a love for the beautiful and the brave, for poetry and story, for good reading of all kinds.

Besides this, very definite instruction in the use of the book is given, and how to get the information it has to give. So a series of lessons on the book itself is in order. The table of contents, the index, chapter heads and foot-notes—all are noted.



The dictionary, its divisions, the word and its definitions, how to find a letter by means of the thumb index, and how to find a word by the use of the key word at the top of the page—these receive the necessary attention. Then the encyclopædia is taken up and subjects searched for and information read. This preliminary work done, the class is taken to the library, shown the grouping of books on the shelves, where to look for poetry, for history, for fiction, and all else. Then the actual use of the books is shown. By the time this series of lessons is over, the child should feel at home in the library.

The principal of the school, naturally, is vitally interested in all that goes on. She observes, she questions, she suggests and encourages. Fulllest coöperation between the librarian and the principal is fundamental in affording to the school, its teachers, the children, and the community the richest help which the library can give. The principal calls attention to a new book for teachers, or suggests to the librarian that perhaps a certain teacher would enjoy a certain book on some specific subject in which she is interested or on which she is working. Magazine articles on topics interesting to teachers and suggestive in their work, are advertised on the library bulletin, and every possible aid is given. Occasional conferences between principal and librarian keep both informed of the progress of this mutual activity.

It may be interesting to know some more or less dry but still illuminating facts about the library here spoken of. Its shelves contain 6000 books. There are over 1400 drawing cards for children, about 1000 in active use. The total number of cards is 1700. During the month of February of this year, 5500 books were drawn by the children. Boys and girls, graduates of the school, drift back from high school and enjoy a quiet hour of reading in this little room, and occasionally one may see a mother or a father employing spare time in the library.

Here are one or two of the thoughts to which our children have given expression showing what the library means to them:

John says: "A library in the school is worth two around the corner, because ninety-nine per cent of the school children would rather run out of their schoolroom door and into the library, than to get all bundled up to just run around the corner. They read more this way."

And Esther, a sixth-grader, expresses her thought: "The library is the most delightful place in the whole school, for who can tell what wonders there are hidden behind those bright red, dull green or brown covers on the shelves? Sometimes, when we open those covers we find ourselves roaming the green forests. Sometimes we get a peep into the land where

fairies dwell, and sometimes we have most wonderful adventures upon the sea. There are so many places we can go to if we but look inside those covers."

Thus we see that the contacts between the schools and the library with its branches and school stations are many, and rich in results. The schools are furnished with reading and reference matter which would otherwise be beyond their reach. The teacher is constantly helped by having these books near at hand, and the children acquire a familiarity with books and the library not exceeded in value by anything else. And when this library is under the same roof with the school, the "atmosphere" of a library and all that that brings with it, is a book-loving, leisure-solving influence.

PART V  
MISCELLANEOUS





## CHAPTER XXIII

### THE PRINCIPAL AND HIS EDUCATIONAL PROGRAM

EVA T. MASON

*Principal, Eastern Departmental School, Louisville, Kentucky*

A PRINCIPAL in planning his educational program must take into account both his professional opportunities and his professional obligations. He is the interpreter for the teacher, the home, and the child. Upon him depends the character of instruction done in his school. To him the teacher looks for guidance, help, and sympathy. His duties are of a three-fold nature, including organization, administration, and supervision. He must have the perspective that will allow all three of these to take place at the same time so that he can properly meet his obligations and opportunities and act in a manner acceptable to his teachers, the community, and the system. A principal can do more than any other executive to give adequate training on the job. For the sake of the achievements of the profession in the past and the ideals of the future, he must grow professionally. For the sake of the people who look to him, he must grow academically.

This matter of perspective may be regarded as an endowment once it is achieved. How may it be acquired and what can be done with it? It may be acquired by working with teachers as a co-worker, by leading, by inspiration, and a willingness to serve through those under him, by listening to their opinions; through interviews with children; through interviews with parents. He should be fearless in discussion, but at the same time maintain an open mind so that he can get something from the other person's point of view. He should teach classes of children, not for the sake of the children, but to keep his perspective, so that he will be able to help the teacher and to keep up with changing conditions: he should be in touch with the activities of the community which he serves, their leisure occupations and interests as well as their more serious affairs. His reading should not be confined solely to educational books and journals lest he become one-sided. An occasional picture show, a concert, the theatre, a novel may be a greater aid to him in getting his program across than so many books on educational psychology and methods. He must be able to see and have sympathy with things as they are, so that he can lead his teachers and pupils to have an interest in and sympathy with things as

they ought to be. Having acquired this perspective, the principal will then be able to see all around and through questions that concern the individual; he will be able to overlook mistakes made by a person; he will be able to meet conditions in an impersonal way; he will be able to maintain a cheerful and buoyant attitude and have the courage and patience to wait for results.

To put his program across the principal must make his plans for the year, for the month, for the week, for the day. Before beginning his new program he should make a survey of the last year's work—wherein was it a success, and why; wherein did it fail, and why; what must be retained to build upon and what must be thrown into the discard? After judging and evaluating this data, he has a good step-off place to start a more effective organization of his school and a definite beginning for his supervisory work. It must be remembered that the teacher is a co-worker in this plan and should be taken into the confidence of the principal. If they both have a definite idea of the work they hope to accomplish, then the faculty meetings can be organized around this general idea and the program can be made to function. With a definite study in view the faculty meeting loses its drab, dreary monotony and can be made a vital factor in the school life, working for the good of the teacher and pupil.

*Chronic repeaters*—May I give at this point a concrete example of a definite piece of work done last year? At the beginning of the year we determined that the aim should be for improvement in scholarship in our school, from the fifth grade up. The fifth grade was the place where there seemed to be a slacking up on the part of the pupils. We began this work with the study of a group of non-promotion children, consisting of seventeen boys. In studying their records we found that from the fifth grade on they were all chronics, having spent from two to three terms in each division. Both the boys and their parents had come to regard it as a part of the regular school routine. While their attendance at school was good, their punctuality was poor and had always been so; indeed, I have suspected them of waiting on the outside, so that they would be tardy. I sometimes felt that they took particular pride in never preparing any assigned work, and yet, they were a set of agreeable, attractive, obliging youngsters, always ready to run an errand and often at great pains to perform some difficult and tedious piece of work for the good of the school. They belonged to families who were willing and anxious to coöperate with us in

any way. All the boys knew they *had* to go to high school and some expected to go to college. They seemed to feel that now they could be educated while they waited and when they reached high school it would be time enough to get busy.

Our first step was to have these boys tested. One was found to be mentally subnormal; he was transferred to our special school for retarded and subnormal children. Two proved to be low normal; twelve showed average intelligence; and two were children of exceptional ability. Thus our problem proved to be with children of average ability who should have been in high school, rather than in the seventh and eighth grades.

*The faculty coöperates*—Our faculty meeting was to be devoted to a study of this particular group. In answer to the question of what might be considered the reason for the continued non-promotion of this group, all answered, "Bad conduct and lack of interest." The next question arose, "If bad conduct and lack of interest are the causes, how far is that a criticism of us and our method of work, rather than of the children?" Such a question was rather startling, if not a bit galling. However, we decided to accept the responsibility and use this as a point of departure.

Some of the things to be considered were: (a) These children must be handled in their regular groups; (b) The other children in the groups must not be neglected; (c) These boys must not be allowed to feel that they were special objects of concern, for they were already beginning to pride themselves on the amount of attention they were attracting; (d) They must not be made to feel that we were "picking on them."

To have a firm foundation for our work in the general improvement in scholarship in our school and of this group in particular, we began with a study of the laws of learning. One of the first things we found in Thorndike was, "Education may be determined in terms of response of thought, feeling, action, and the attitude which the individual takes of the bonds by which these are connected with the situations which life offers." It was then our duty to recognize these instincts that had been leading these boys astray and help turn them in the other direction, so that they might work together for good.

These children were not being made socially effective, therefore we must take steps to help them achieve their highest efficiency and to realize a higher social ideal. As before stated, the defective child was placed where he could work on his level,



then we made provision for the two children of exceptional ability to take extra work. We were now ready to turn our attention to the group of average ability.

What instincts and tendencies would we take into account to try to bring about a reformation in the group? What instincts and tendencies had brought about the present condition? Could we use these same instincts for our purpose? Undoubtedly the instinct of imitation and social suggestion plays a large part. One boy would grin; his companion would grin; the leader thought it smart not to bring his home work, the contagion spread; if John is rash enough to be tardy repeatedly, so am I; the teachers and children expect us to misbehave, we will not disappoint them.

The play instinct—"It's fun to hear the teacher talking about our being tardy. Let the children fuss about our class record being kept down. It's a lot of fun to throw erasers before the teacher comes into the room and hear her try to find out who did it. It is extremely interesting to hear the many different things they can say."

Rivalry—"How much less work can I do today than I did yesterday. Our crowd is the most troublesome one in school; let's make it more so." Fear—"If I don't act up to the other boys in my crowd they will think I am a sissy." Submission and docility—There was great pleasure in following the crowd and falling in with it; it was the line of least resistance. "These other boys do it, so must I."

As the type of work being done by the teachers was, on the whole, of high order and should have interested these boys as it did the other members of the class, we felt that our first problem was to get across to them some idea of conscious self-control. Each boy was asked to prepare a slip with each teachers's name on it and a space for each day of the week; at the end of the day he was to bring this slip with his deportment marks on it to me. I explained that this was not in the nature of punishment, but to give him a chance to check on *himself*. Slightly interested, a little suspicious and rather curious, each boy began the week. At the end of the week I called for a mark from each teacher for his effort and achievement. This was already a part of our school work and was being used successfully in helping children who were falling behind and who needed additional help.

But the daily slips—the first day disclosed an interesting result, the leader in each group showed a marked improvement in his deportment and reported with great glee that Miss \_\_\_\_\_



said he had "done fine" in his history, arithmetic, etc. In each case it was the subject in which that particular boy had the greatest aptitude. The other boys showed a slight improvement. This was purposely made a group interview. How they pricked their ears when it was discovered that the ones who had heretofore thought of the most annoying things to do were getting the best deportment marks. Perhaps there had been an instinctive imitation, for all showed a slight improvement.

From that day on, with some occasional slips to make life interesting, there began an improvement. We had more or less of a social hour as we talked over the various marks. It became the fashion for them to get better marks in deportment. Needless to say there was an improvement in all lines of work. They were on friendly terms with the teachers. They finally came to explain the cause of the low marks and to acknowledge the justice of them.

The spirit of rivalry entered in. Each fellow carefully studied his report and his neighbor's and, each week, made an effort to improve his own. If it fell below, he pretended, boylike, that he didn't care, but the next week showed an improvement. The element of fear began to operate with the spirit of rivalry—if I don't keep working, John will get ahead of me.

We have in our school an Improvement Roll for the satisfaction of those people who strive for the Honor Roll and, through no fault of theirs, can never hope to achieve it. At the end of the first month four of the boys were on the Improvement Roll and did not conceal their pride. Before the end of the term, all had been on it, and four had made the Honor Roll. The punctuality problem solved itself; some enjoyed their work, others found it less obnoxious. All worked in a spirit of good fellowship and had become an integral part of the group.

We had many ups and downs, much backsliding and no angels were developed, but every boy made his grade in a creditable manner and went forth with a feeling of self-respect that comes from successful achievement.

Our civics work for the year had been based on the following aims: (1) To make the child socially effective in his home, school, and neighborhood, conscious of his dependence upon others and his ability to help others; (2) to make the child conscious of personal virtues, which are the basis of all civic virtues—self-control, obedience, punctuality, courtesy, honesty, fair play, care of property, and respect for the rights of others.

All of our time was not given to this group, of course, for in making our study we had the other five hundred children in the school to consider. We felt that our work was well worthwhile, we had such an understanding of the laws of learning as we never had before, for we were working them out and proving them in our "laboratory." The pupils in the school benefited from the improved methods of work and were able to develop methods of their own in the matter of study. We had one non-promotion at the end of the term against seventeen the previous term.

In handling this program, organization, administration, and supervision all functioned at the same time to the end that the instruction and scholarship in the school improved; there was a better understanding between pupils and school, and between home and school. We had been able to give recognition in the school life to the most useful relationships and activities that engage the thoughts and activities of the citizens of a community.

To sum up, the question for us principals to consider is, "How may I as a supervisor improve the teaching being done under my direct supervision?" May I quote from the opening paragraph in the initial report of the Committee of the Elementary School Principals of the National Education Association? "The elementary school principal cannot hope for long to guide successfully the activities of his school unless he keeps in constant and close touch with his plant and personnel. And this implies that he is not an office man, but rather an alert, observing, frequent visitor in all parts of his special field. He must see things at first hand in order to judge competently of motives, results, and needs. Perhaps his first and greatest concern is with his teachers. Their strength and weakness will not be properly revealed to him unless he meets them often in the classroom under varying conditions. Furthermore, his presence in a room at any time of day should seem to the teacher as part of the natural order of things, reassuring rather than disquieting."

The following plans have been used and helped, not only in the supervisory work in my school, but in putting across our educational program:

1. At a conference, determine the general and specific aims of the school for the year. This gives a basis to check on at the end of the year.

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2. A definite plan for grade and subject visitation. Conditions of work have been evaluated both objectively and subjectively by a standard agreed upon between principal and teachers. This is used to form the basis of the conference between principal and teacher following the class visit, giving a common basis of work for both. This conference should be planned by the principal as a real teaching situation.

## CHAPTER XXIV

### PLATOON SCHOOLS OF DETROIT

ROSE PHILLIPS

*Director, Platoon Schools, Detroit, Michigan*

**A**DVOCATES of the platoon type of school organization have broadly heralded its advantages as a measure of economy.

So much emphasis has been placed upon this aspect of the organization that many people have failed to realize that the platoon school, far from being a mere device to relieve a temporary situation, is in fact a new type of school based upon a clearly defined educational philosophy. To be a consistent advocate of the platoon school, one must, as a prerequisite, believe in the social aims of education. The purpose of education according to Cubberley is, "To train children for and introduce them into membership in the little community of which they form a part, and from this to extend their sense of membership outward to the life of the State, the Nation, and to the world civilization; to awaken guiding moral impulses; to fill them with the spirit of service; and to train them for effective self-direction—these become the great tasks of the modern school."

It is for the performance of these tasks that the platoon school has been instituted. It must, first of all, make provision for the health of the children through play, through the school clinic, the school lunch, and through the instruction in hygiene and safe living.

The platoon school must teach the three R's as effectively as the old school taught them. It must train pupils in the duties and responsibilities of citizenship and make them conscious of their social relationships. It must train children for worthy participation in the affairs of the home. It must arouse vocational interest and test aptitudes and tastes. It must through an appeal to the child's imagination and emotions develop attitudes which will prepare him to spend his leisure time profitably. It must not only give him those knowledges and skills which should be the common possession of all, but through a variety of experiences afford him abundant opportunity for self-direction, self-appraisal, and self-control, which are fundamental to the development of character.

The elementary school curriculum is merely a reflection of the changing needs and demands of society. In colonial days when life was simple and needs were few, the curriculum embraced



only few subjects, the Bible being the most important. The aim of education was religious. After a time we became a Nation, immigration moved westward and society became more involved and complex. Methods which before were crude and simple became more intricate.

This new society with its broader aims and improved methods made new demands on education, and the schools responded with an expanded and enriched curriculum. In the industrial and social life of the people the complexity was met by the substitution of the division of labor for the one-man process, and in the traditional grammar school which came into being in 1848 the same principle maintained. The result was that the one-teacher school, in which each teacher undertook to encompass all of the subjects of the curriculum, gave place to the departmentalized school in which the overburdened teacher was relieved by the division of labor.

This attempt to graft a new principle of organization—namely, departmentalization upon the old grammar school—has resulted in a hybrid form of organization which is expensive because it is wasteful of both teacher service and instructional space and which cannot and does not adequately provide for the less formal aspects of education, which have so important a place in modern society. And so, as a direct reflection of the great economic and social changes and the adaptation of education to them, came the platoon school.

In September, 1918, in Detroit, an experiment in elementary school organization was inaugurated in two schools. The purpose of this experiment was not a measure of economy but an experiment with a new type of school organization based upon a concrete interpretation of the social aims of education. Each building chosen for this experiment was equipped with an auditorium, a gymnasium, a playground, and twelve classrooms. Although each principal was allowed to select her own faculty, the teachers chosen were, in the main, those who, regardless of range of ability, had worked with these principals in the old type of school. One of these schools had a grade range of 1-8, the other 1-6. One was in a typical American neighborhood, the other in a distinctly foreign neighborhood. The teachers were trained in the philosophy of the organization and each corps worked enthusiastically as a unit in conducting the experiment. A careful checking of educational results, as well as the reaction of teachers, pupils, and communities, was made in each school. Results in all of the tool subjects were above the city medians.

Teachers seemed stimulated, and many were absolutely rejuvenated by the new project. So enthusiastic were the children about the new school with its variety of interesting departments that their enthusiasm was communicated to the homes and was reflected in the greater interest of parents who began to visit the schools in large numbers.

Before the close of the first semester four more principals had requested the privilege of opening platoon schools. On September 25, 1919, the Board of Education of Detroit, preliminary to the preparation of a comprehensive building program, and on the recommendation of the superintendent and his staff adopted the following resolution: "That the educational needs of children of kindergarten and first six grades be met by building large elementary schools, definitely planned to satisfy the requirements of the platoon form of organization."

The adoption of this resolution is epoch-making, because it gave official recognition to the idea that the traditional grammar school building cannot adequately realize the present day ideals of elementary education. The policy was not determined upon hastily or without consideration, but because the results of the experiment were so convincing and the psychological effect upon principals, teachers, and pupils was so favorable that the further development of platoon organization was inevitable.

*Description of organization*—In a platoon school the membership is divided into two large groups or platoons. While the groups comprising one of the platoons are engaged in the home rooms the groups of the alternating platoon are found in the special rooms. For home-room activities the school day of six hours is divided into four ninety-minute periods. Each group has home-room work for ninety minutes in the morning and ninety minutes in the afternoon. Teachers work five hours a day with a half hour rest period in the morning and a like period in the afternoon. Home-room periods alternate with three thirty-minute periods of special activities. Thus, in the course of the six-hour day, each child has three hours of work in the home room under the control of the home-room teacher and three hours in the special activities. There are six thirty-minute periods daily of special activities for each child except in manual training and upper grade art where periods are either an hour or ninety minutes in length.

The number of home rooms is always half of the number of class groups in the school—for example, a 24-section school has 12 home rooms; 20-section has 10 home rooms; and 18-section

has 9 home rooms, etc. Let us consider for a minute what happens in the home or regular room. One of the fundamental objectives of education is a knowledge of the 3 R's. In the home room under the home-room teacher the children are taught reading, arithmetic, spelling, and penmanship. Many of the teachers in traditional schools are not trained in music or art and yet they are expected to produce excellent results along these lines. The home-room teacher in a platoon school is entirely relieved of this responsibility. She has each group under her control three hours of the day and exerts the same type of influence over him that the teacher has always exerted over him in the traditional school. The home-room teacher is a specialist in the formal subjects, and more time according to the Detroit time allotment is given to the 3 R's in a platoon than in a non-platoon school. Although a home-room teacher has two groups of children to handle during the course of the day, she has fewer subjects to prepare, fewer supervisors to interview, and she can get a better check on the ability of the children in the formal subjects.

The home-room teacher has charge of the final recording of attendance. She also keeps in touch with the child's progress and conduct in other classes and in a word furnishes the "maternal influence" about which we hear so much. During the three hours in which the child is away from the home-room teacher's direct control, he is developing an interest and an enthusiasm which stimulates him to work better during the three hours which he spends in the home room. It is better for both teacher and pupil that the child does not sit in the home room more than three hours during the entire day.

And now a brief word about the special rooms. There are the social science rooms equipped in the newer buildings with herbariums and aquariums for nature study, Keystone sets, sand tables, and other equipment for socialized geography and history. The platoon school makes it possible to place in charge of this work a teacher who is a student and lover of nature and who can concentrate on this type of work exclusively.

Training for leisure-time activities is given in the music room and the art room. These subjects are both taught by specialists. The technical music and preliminary chorus and orchestra work are done in the music room and brought to the auditorium for further interpretation and polish.



Literature rooms are provided for the purpose of emphasizing the appreciation side of literature. The teacher is selected with reference to her own literary appreciation and her ability to interpret child literature. Telling and retelling of stories, reading and reciting of poetry, and informal dramatization are prominent features of literature room work. Science and literature are both daily activities in Detroit platoon schools.

One of the most important units in the school is the library. Its chief function is to train pupils to use their leisure time worthily. The library is an attractive well-lighted room lined with book shelves, equipped with the best books for reading and reference. The children have two half-hour periods a week under the direction of a trained teacher-librarian with the privilege of coming here freely during home-room study periods. The work of this department carries over into every unit of the school.

Each platoon school is provided with a gymnasium sufficiently large to care for 80 pupils (except in 12-section schools) every period of the day. Each gymnasium has two or more teachers depending upon the size of the school. One of these teachers is a director who has charge of the department and receives additional compensation. In the gymnasium the best recognized types of health work are carried on, including games, folk dances, drills, and so-called stunts of all kinds. In addition to the daily half hour in health work, an outdoor play period is also scheduled. Scheduling a daily outdoor play period for the majority of children presupposes a place to play and to this end splendid well-surfaced play grounds have been provided.

The auditorium of the platoon school adds to the elementary school an entirely new and important socializing unit which the non-platoon school did not have. The possibilities of this unit are unlimited. When these possibilities are finally worked out and realized it will probably be found to be the most effective educational force in the entire organization.

The percentage of possible increase in pupil capacity of a building due to the introduction of the platoon organization, is very closely related to the organization of the auditorium. In a recent survey of platoon organization in 28 cities, it was found that the increase in capacity ranged from 0 per cent to 83 per cent and was due usually to the load placed at one time in auditorium and gymnasium. If the auditorium work is interpreted as a continuous series of assemblies, where the majority of the children serve in the main in an audience capacity and the work



developed outside of the auditorium is presented as a finished product, then it is consistent to have there several hundred children at one time. This, of course, implies some difficulty in adapting the subject matter to a necessarily wide grade range of pupils.

In Detroit, the object has been to make the auditorium the greatest socializing and integrating unit of the school. All auditorium activities are based upon a social motive. Except for definite school assemblies the auditorium provides for a maximum of two groups of pupils each period. This allows for greater pupil participation, less strain for the teacher, and closer grade range of classes. The auditorium is the great correlating and integrating unit of the school, linking up the contributions of each department of the school and broadcasting them in the form of a series of social projects—operettas, pageants, festival day celebrations, health plays, or debates all planned and discussed, assembled, and produced in the auditorium.

In this way the experiences which the child has had in the home room, the art room, music room, and gymnasium are revived for him and re-interpreted in terms of their social values. While it is not always possible to integrate all of the work of all of the departments of the school, it is possible through the coöperative efforts of the teachers to focus the attention of the pupils upon the auditorium and to make them conscious of the fact that their experiences in all parts of the school function in various ways in the auditorium. With children meeting in groups and participating in activities which make them conscious of their social relationships and learning how to act and re-act among their companions, no one can predict what it will mean to a child to come under this socializing influence for a daily period of six or eight elementary school years. Every minute of auditorium time must be made to count toward making the child the highest type of social being and citizen possible. Teachers of the highest type are selected, for this work demands initiative, originality, enthusiasm, and real leadership. For this reason auditorium teachers in Detroit are paid a salary in advance of the regular elementary schedule.

The organization of a platoon school in Detroit involves first a preliminary study of the type of building under consideration. There are three types of platoon school buildings in Detroit: (1) Schools built especially for this type of organization and equipped with all the details of the twentieth century school; (2) old buildings to which additions have been built; (3) old

buildings not remodelled (where space is available for auditorium and gym). In every case a survey of the buildings is made by the Platoon Department which serves as a continuous department of research for this type of school. Every detail of space is checked. Rooms to be used for auditorium, gymnasium, and play are selected and all available rooms of classroom size considered. For example, a building of 18 classrooms with auditorium, gymnasium, manual training, and library, will, on the Detroit plan become a 24-section school with a capacity of about 960, exclusive of the kindergarten. This space will be assigned to 12 home rooms, 2 literature rooms, 1 music, 1 art, 2 social science rooms, auditorium, gymnasium, library, and manual arts.

In the same manner the number of class sections or groups is determined for all-sized buildings. The number of sections or class groups in a school ranges from 12 to 48, the type preferable being the 24-section school, which by analysis has proved to be the most efficient from the point of view of space and teacher service. Thirty-seven of the seventy-five schools now in operation are of this size.

Another important consideration in platoon schools is teacher service. This has been carefully detailed on the basis of a five-hour teaching day and the number of teachers has been determined for each sized school. For example, a 12-section school requires 13 teachers, while a 24-section school with manual training and library instruction has a quota of 29.3 teachers. (The .3 signifies the amount of teaching time of the assistant principal). Each teacher is given two rest periods a day.

One of the most important factors in platoon school organization is the school program. No platoon school can be successfully organized and administered unless it has back of it a carefully planned and well-balanced program. Every principal in Detroit starting a platoon school is given a scientifically made program based on specific conditions existing in his building. This assures the successful opening of the school and allows the principal to use his energy the first semester in studying the philosophy of the organization and the details of administration. Principals are universal in saying that their biggest help in opening their schools has been the smooth running program given them at the beginning.

The success of the platoon organization rests in large measure upon the attitude and training of principals and teachers. No principal can interpret a program correctly much less apply it if

he has not a clear understanding of the organization. And so, to prepare teachers and principals in Detroit for this work Detroit Teachers College presents courses covering the evolution and philosophy of platoon organization, the principles of program making, and all administrative details for each type of school. No principal should undertake to administer a platoon school unless she has been trained for it, and not even then unless she believes in it. It has come to be considered a mark of advancement to be made the head of a platoon school, and such recognition is eagerly sought.

There are now about 2200 teachers in platoon schools in Detroit. They seem to be overwhelmingly in favor of the organization. In reference to their work in this type of school the following are some of the advantages cited: (1) Teacher becomes a specialist; (2) teacher's work less burdensome; (3) does not have to work with troublesome pupil all day; (4) three R's can be taught better; (5) more variety and less monotony in day's work; (6) pupils more interested and responsive; and (7) results more satisfactory.

While it is important to note the effect of this organization upon principals and teachers, it is vastly more important to note what psychological effect it is having upon the pupils. We have the testimony of the pupils themselves expressed spontaneously in letters to principals and teachers. These letters note with satisfaction that the platoon school does away with the monotony of sitting all day in one seat under one teacher. The pupils like the variety of the activities and the opportunity to work intensively in one room and then move on to new surroundings and a new piece of work. They are particularly enthusiastic about the auditorium, gymnasium, and library.

From the parents' point of view we have listed scores of reasons why they prefer having their children attend a platoon school. In fact so favorable has been the parent reaction in all parts of the city that we have been forced to recognize just recently through parent-teacher associations many signed community petitions requesting this type of school.

Although we feel that the fundamental ideas underlying the platoon school are sound and that its success is assured, we have at all times in Detroit invited consideration of its possible disadvantages. The objections to this system fall in two groups: (a) Those which are fundamental and deserve serious consideration; (b) those which concern matters of detail which can be



cared for by proper administrative adjustments. Only the fundamental objections will be considered:

*First—departmentalization*—It is urged that departmentalization below the seventh grade is undesirable chiefly because there is lack of integration and because a pupil loses the mothering to which he is accustomed in the traditional school. There is nothing in our experience to indicate that this objection is valid. Measurement results in the tool subjects indicate that platoon results are higher than non-platoon. It also has been shown that every child is under the direct control of the home-room teacher for half of the time. Those who fear the loss of the personal touch are thinking in terms of the old one-room school in which one teacher taught the pupils during the entire school day. As far as Detroit is concerned the day when a pupil recited all day to one teacher has long passed. A study of non-platoon schools shows that even the kindergarten and first grades now come into contact with several teachers during one day, with an increasing number of teachers in grades 4 to 8. With the home-room situation in platoon schools there is often less departmentalization in the fundamentals than in traditional schools.

The next objection is that of the first and second grades in this type of organization. In addition to the favorable results in the fundamentals, our experience has shown that small children have greater power of self-direction than they are ordinarily reputed to have. In schools in which first and second grades have been omitted from the organization, parents and principals have invariably requested that they be included in order that they may have the advantage of special activities. We now have in Detroit 56 schools having first and second grades in this organization.

Another objection is that platoon schools make for disorder and confusion and that freedom tends to degenerate into license. The exact opposite is the fact. It is almost the unanimous opinion of principals, teachers, and others that one of the biggest things which this type of school accomplishes is self-direction and self-control.

There is some criticism that the platoon school places the child under a nervous strain. In schools which have been organized for a reasonable period this question is seldom raised. Cases of nervous children are not peculiar to platoon schools. In any event the organization of this school is sufficiently flexible to ad-



just itself to such cases. A child may have a program that will permit him to shorten his day or lengthen his lunch hour.

The above represent the only actual criticisms we have met in our experience with seventy-five platoon schools. And now just a word in conclusion. While Detroit has made marked progress in reorganizing its elementary school system, every step of its progress has been carefully checked and studied. The process of reorganization has been paralleled by research studies by the Platoon Department. These, scientifically studied and analyzed have shown higher results in fundamental subjects, fewer school failures, less retardation, less cost than the old type, and greater opportunities for realization of twentieth century needs and ideals.

## OBJECTIONS TO THE PLATOON SCHOOL ANSWERED

M. J. PATTERSON

*Principal, Irving School, Kansas City, Missouri*

THE OLD SCHOOL curriculum consisting principally of the three R's served an age in which population was sparse, transportation poor, and the work of the world was not so highly organized as it is today. In those days children were compelled to do all kinds of work about the home and the activities of the life they lived furnished training that is not possible now in the congested districts of our large cities.

Physical training must be provided for our boys and girls; they must have an opportunity to gain knowledge and practice in the domestic arts and shop work which the home of the present day does not furnish. Science, music, and art are coming into their own in public education. The business world is demanding more careful training in the three R's. All of these requirements create a situation in the school that calls for a complex program. When all of the factors are considered it is a difficult situation. The special subjects cannot be so well taught by all teachers, and where the required number of academic teachers must be employed, one for each group of forty or fifty pupils, and in addition the required number of special teachers provided the cost of education will be greatly increased.

The most serious attempt to meet this situation in the country has been the platoon type of school organization. We are indebted to William Wirt, of Gary, Indiana, for originating the plan. The success of his work at Gary attracted the attention of

educators all over the country, and in a short time modifications of his plan appeared in many localities.

The term "platoon," now so generally accepted to describe this form of organization, was not used to designate the schools at Gary, but Mr. Wirt always used the word platoon in speaking of the two groups of children in the same school. Superintendent Hartwell, now of St. Paul, Minnesota, called his schools "platoon schools" when he was superintendent at Kalamazoo, Michigan. These were the first platoon schools organized outside of Gary, Indiana.

The pioneer days of the platoon schools have passed. They are found all over the country from the "Sunny Southland" to the border of Canada, and from the Atlantic to the Pacific. They have found a welcome in some cities where the building problem was oppressive, because under the plan the capacity of buildings was greatly increased, but it should be understood that there is an educational philosophy underlying it that has made the strongest appeal to the people. They have seen it as an opportunity for an enriched curriculum for their children; as an effort on the part of school authorities to give their children the largest possible opportunity for social development.

Some of the objections to the plan that were presented in the pioneer days still linger in the minds of serious people, and it is the purpose of this article to attempt to answer some of these objections.

Interruptions of the daily work of the classroom teacher, due to the extra things that have been added to the program of the school have become alarming. It is frequently said by teachers that they have the pupils only a small proportion of the day and they are expected to accomplish as much for them as they did in the days when they had their pupils full time. The common remark of these teachers is, "We just can't do it."

The same condition causes rooms to be vacated and teachers to be idle while their pupils are doing their work in these special subjects. This seriously interferes with efficient work in the school and creates a feeling of dissatisfaction among all of the workers.

Many new activities have entered the school in recent years and the work is of such a character that it must be done by teachers who have had special training. It is not possible to give all teachers the necessary training to carry on all of the activities that make up the program of the modern school. If the standard

program school is to be made an efficient one, this condition must be brought about; otherwise there will continue to be vacant rooms and idle teachers while specialists are doing their work.

In the faculty of any large school there are teachers with special talents, in fact all have some special aptitudes which may be utilized if the school is so organized that they may have an opportunity to do the kind of work for which they are best fitted. There are teachers whose ability is best shown in the development of skills which are fundamental in the education of children; and that is the field to which they should be assigned. It is the type of work in which they will find the greatest satisfaction and be able to render the maximum of service. There are good teachers who find no joy in teaching the fundamentals; they find it irksome, for their talents and teaching ability run in other lines. They like to deal with the content subjects or do some special line of work. They, too, should be assigned to the kind of work suited to their ability and training. Both types of teachers above mentioned may render great service to society if they are placed where they can serve most efficiently.

A common objection to the platoon school is that in academic work the pupils do not measure up to the standards set by the so-called traditional school. The results of some standard tests may show that in the period of organization, which may extend through one or two years, the platoon school is somewhat below standard. This may be accounted for by considering the amount of attention that must be given to the problems of organization.

It requires time to make the new adjustments in the inauguration of so great a change. New departments must be established, teachers and pupils must be adjusted to new conditions, and so much of the efforts of the entire faculty must be given to these special tasks that the academic work may suffer to a certain extent. Then, too, the newer subjects make a strong demand upon the interest and attention of both teachers and pupils and for a time they will occupy the front of the stage to the exclusion of the fundamentals. In time, however, the interest will return and the better opportunity for doing the academic work will produce more satisfactory results.

The writer has asked many of the home-room teachers in the platoon schools if they thought they could do as good work in the fundamentals as they were able to do in the standard school, and the reply has always been that they could do better work; and if they did not get results that were satisfactory it was their

own fault, because they had a greater opportunity to do so. Teachers say that the single class group, with the undisturbed periods enable them to accomplish more than they could under the old type of organization.

The most satisfactory proof however is to be found in the results of some standard tests which are used to determine the efficiency of teaching these subjects. The Irving school in Kansas City has been established long enough to have passed through the period of organization, and tests applied to this school should fairly represent the quality of work done in the fundamental subjects. The personnel of the pupils in this school is about the average of the city, and their work should compare favorably with the city norms.

We should keep in mind in this connection, however, that many unbiased educators feel that because of the additional socializing opportunities which the platoon school offers all that should be expected of this school is that it should merely hold its own in the academic subjects. In Seattle and in Kansas City, where scientific comparisons have been made, the platoon schools have excelled the other schools in academic achievement. The record of the Kansas City schools follows:

#### COURTIS STANDARD TESTS, MAY, 1923

Grade	Addition		Subtraction		Multipli- cation		Division	
	Atts.	Rts.	Atts.	Rts.	Atts.	Rts.	Atts.	Rts.
4 { Irving . . . . .	10.0	7.3	9.5	7.6	7.9	5.5	7.2	6.2
4 { City average . . . . .	9.8	7.4	10.2	8.4	8.6	6.6	8.7	7.8
5 { Irving . . . . .	12.4	11.6	11.6	10.3	11.0	9.7	11.9	11.9
5 { City average . . . . .	12.1	9.8	12.3	10.3	10.4	8.4	10.0	9.9
6 { Irving . . . . .	15.0	13.1	13.8	12.2	12.0	10.3	12.6	12.3
6 { City average . . . . .	14.3	12.0	14.4	12.4	12.6	10.2	12.5	12.5
7 { Irving . . . . .	13.9	12.1	15.9	14.1	12.4	10.9	13.3	13.3
7 { City average . . . . .	15.0	12.8	15.7	13.8	13.7	11.4	13.9	13.9

In this test the scores of the Irving school are compared with the city average. When these scores are compared with the city norm it is found that every group is normal or above. No effort is made to advance any group beyond the normal, so the showing fairly represents the quality of work done in each grade on the four fundamental operations.

The Buckingham tests were given to the seventh grade and their score was 81.0. The city average on the same test was 81.1.



## SPELLING

Grade	III	IV	V	VI	VII
Irving.....	86.8	87.2	95.8	92.6	99.9
City average.....	86.6	88.0	93.9	94.9	95.3

These scores were made on a list of words selected from the Kansas City word list.

## WRITING SCORES

Grade	III	IV	V	VI	VII
Speed { City average..	52	64	73	77	82
{ Irving.....	62	80	84	87	84
Qual- { City average..	8.8	9.2	9.6	9.8	10.2
ity { Irving.....	8.5	9.3	9.9	11.0	10.1

The city average made on the Von Wagenen history test was 15.6 while that of the Irving school was 15.2.

The Language Error Test adapted from the article in *Educational Psychology*, September, 1922, was given in 1923 with the following result: the per cent of error in the city was 3.4 and the per cent of error in the Irving school was 3.1.

One of the outstanding advantages of the platoon school is the favorable conditions under which the academic work is done. The home rooms are not disturbed by the interruptions to the program which must necessarily occur if pupils are taken from the room for special exercises. The single class group affords greater opportunity for directed study, and better concentration on the part of the pupil.

One half of the day is given to the work of the home room and the other half of the pupil's time is devoted to the special activities. In order to divide the day into two equal parts, one of the content subjects is taken out of the home room and taught in a special department. Whether the social sciences or reading shall be taken out will be determined by conditions in the school. In the Irving school reading above the fourth grade is taught in a special department, but some time is given to oral reading in the third and fourth grades.

The average time allotments of a number of our large cities is compared with the time allotments of the Irving school of Kansas City.

A COMPARISON OF TIME ALLOTMENTS IN THE NUMBER OF  
MINUTES PER WEEK

Subjects		Grades				
		III	IV	V	VI	VII
Arithmetic	{ 42 cities.....	193	206	211	212	212
	{ Irving.....	225	225	225	225	225
Language, Gram. & Comp.	{ 45 cities.....	167	176	187	194	207
	{ Irving.....	150	225	225	225	225
Spelling	{ 46 cities.....	87	85	82	78	72
	{ Irving.....	100	90	75	75	75
Reading	{ 47 cities.....	332	245	182	141	142
	{ Irving.....	350	275	225	225	225
History	{ 32 cities.....	30	54	84	97	148
	{ Irving.....	50	50	75	90	225
Geography	{ 42 cities.....	59	137	156	162	137
	{ Irving.....	150	180	225	225	90
Writing	{ 44 cities.....	78	80	79	77	68
	{ Irving.....	75	75	75	60	60

The question of the amount of time to be allotted to each subject in the curriculum is receiving serious attention all over the country. Reports from a large number of cities indicate a wide variation in the time schedules of the standard programs, but this is not true of the platoon schools. The organization favors the use of the definite period for all subjects.

The program of every school includes all of the subjects taught in the platoon school, but the time given to the special subjects is variable. Nature study, elementary science, art, and music are taught in most schools, but the efficiency of the work is determined by the degree of efficiency of all the teachers in these subjects. We have no tests to measure these things, therefore comparisons of the quality of the work done in these subjects in the platoon school can not be made with the work done in the standard program school. In the platoon school the program of special subjects is just as definite for each day as the program for the fundamental subjects. They not only have the definite time allotments, but the subjects are taught by trained teachers in specially equipped rooms, thus assuring each class an opportunity to experience the best the school can offer in these subjects.

In addition to the special subjects already mentioned, the platoon program provides definite periods for work in the auditorium and library. These departments are under the direction of skilled workers who not only know the objectives in this work, but are able to make them function in the life of the school. It is through the work of the special school that the children receive the most of that which enriches their lives.

Our most progressive school people are saying today that children are not to be simply crammed with knowledge in the schools; they must be sent out in the world equipped to assume their places as useful and capable members of society. They must have the experiences in the school that will give them preparation for living when they go out into the world. In a platoon school, students have the opportunity for participation in a great variety of activities which tend to develop the better qualities of citizenship. They do not simply study about citizenship, they are living it every day in the school under the direction of sympathetic leaders.

In every classroom group of children there is a certain number of conspicuous leaders who are so by nature; and these children too often dominate the activities of the group, and because of their ability as leaders they are put forward to direct any room project upon which the group may be working. It is easy for the less fortunate members of the class to surrender their rights to these born leaders and assume a subordinate position in the work of the school. This process continuing through the entire elementary school period does not add to the number of capable leaders, and tends to the development of that irresponsible attitude on the part of many pupils which is the bane of their educational progress.

This new type of organization with its varied activities, all aiming to develop the initiative and power of self-direction of the pupils, calls forth a great many leaders and helpers. Where the system has been in operation for a number of years the number of pupils who participate in an active way is steadily on the increase.

It is possible to determine with a considerable degree of accuracy to what extent this development has taken place. In the Irving school individual records have been kept of the pupil activity for the past five years. This record shows the character of the pupil's participation in all phases of school work, which

includes his work in the academic rooms, the special departments and the special activities, such as the auditorium programs, dramatization, debate and the various clubs of the school. The rating on leadership was made by the teachers who have had charge of the work of the upper classes, and their unanimous choice determined who should go on the final list. They find that in the class of 1919 only 9.5 per cent of the pupils possessed any marked degree of leadership. During the next three years there was a gradual increase in the number of leaders, and the class of 1923 contained 24.8 per cent who were so rated. 37.3 per cent of the class of 1924 are ranked as capable leaders, and 85.7 per cent of these leaders have been pupils in the Irving school for two years or more.

No one claims that the platoon school is the panacea for all of the educational ills. There are advantages and disadvantages in all of our plans for improving conditions, and we should choose the plan that offers the greatest number of advantages. Many of the objections that are heard are not worthy of serious consideration because they refer to matters of minor detail in the organization which disappear when the school is put in good working order.

Among the objections worthy of consideration is this one which is frequently heard, "The promoters of the plan are absorbed in the problem of handling children rather than teaching them." It is true that the program is the fundamental thing in every school and determines the educational policy. To understand the platoon school we must get a hold on the philosophy that underlies it. Progressive educators have been striving for years to make their schools function as real social agencies, and they are finding that through the platoon school they are able to give expression to these desires. If this type of school did not enlarge the educational opportunity of all children, nothing else that could be said in its favor would warrant its adoption. It is not true that cities are adopting it just to handle excess numbers of pupils at the expense of the child's welfare. If, however, they are able to offer this enriched educational opportunity, and at the same time increase the capacity of the buildings 25 per cent or 33 per cent they should not be penalized for so doing.

*More freedom for teacher*—It has also been said that superintendents favored the plan because they could make all programs and send them out from the office, and that the direction of the



work was so centralized that the initiative of the teacher was destroyed. This objection suggests one of the chief joys of working in a platoon school. There has been no type of school organization in the country that has called for the exercise of so much initiative on the part of the teacher; and it is through the exercise of this initiative that the teachers in these schools have developed professionally. No group of teachers in a city system has greater freedom in working out their ideas. Co-operation of all teachers is one of the requirements of the plan, and every teacher has the help of every department of the school in working out her projects. The group conference is the clearing-house for the best suggestions from the faculty. The objectives are clearly understood by all and each teacher carries on her work with all the freedom found in any system of schools.

*No more supervisors needed*—It has been thought by some that the number of special supervisors must be greatly increased on account of the special departments. There is much less need of special supervisors because these special classes are in the hands of trained specialists, and do not need the amount of attention that must be given to this class of special work when the ordinary classroom teacher is attempting to do it. In fact special supervisors find their work much more satisfactory since they are only required to keep up the efficiency of a few teachers in a building instead of an entire faculty.

*Buildings not more expensive*—Opponents of the plan have emphasized the expensive construction of school buildings required to house these new schools, and call attention to the cost for constructing the necessary auditoriums and gymnasiums. All new schools built to house the standard type are now being equipped with these expensive additions. The only three elementary schools in Kansas City having swimming pools are standard type program schools.

Another persistent objection to the platoon school is that the pupil has too many teachers, and consequently they lose the character development that results from contact with one personality. After the first few years of school life contact with different personalities should produce good results in character development, because the elements in the character of one teacher may not appeal to all pupils and what one teacher may lack another may furnish. The change in teachers through a series of years is not so great as at first appears. Special teachers may have charge of the same pupils for four years or five years

in a platoon school. When he returns for the new term, the pupil may meet a new academic teacher, but he will find an old friend in the special department, and he finds no more difficulty in making his adjustments to new teachers than he would in the standard school. Then, too, under the new organization no pupil is compelled to have a poor teacher all of the time.

The movement of pupils instead of being a hindrance to progress furnishes relief from the fatigue of the schoolroom, and at the same time gives a splendid opportunity for training in self control. The primary platoon may be distinct from that of the upper grades and need not interfere in their movements.

#### ADVANTAGES SUMMARIZED

The three R's receive as much attention as they do in the standard school, and the results of tests show that the work is as efficiently done. Content subjects, the real cultural work of the school, receive more attention, and all special work is efficiently done without disturbing the work of the home rooms.

There is a fixed program for all special activities, so there is nothing left to the whim of the individual teacher. Every pupil has an opportunity equal to that of every other pupil in sharing the best talent and equipment the school affords; and he has these advantages through a period of years.

There is great economy in the use of the building. Every room is in use all day and the capacity of the buildings is increased from 25 per cent to 33 per cent. The playground is in use all day under supervision, and is never crowded. Nothing is lacking in the organization to carry out an extensive program of physical education.

The pupil has the advantage of specially equipped rooms and better teachers than the ordinary for art, music, science, and literature. Organized auditorium work takes care of the civic and social activities, dramatization, visual instruction, music and art appreciation. The activities of this type of school furnish the sort of experiences that develop the habits that will fit children for social living.

## FORMS USED TO CHECK RESULTS

## I. ONE-PLACE ADDITION—NO CARRYING AND CARRYING

3	2	5	6	2	4	7	5	2
4	5	4	2	3	3	1	3	4
—	—	—	—	—	—	—	—	—
6	8	7	7	9	5	6	9	7
7	5	4	7	6	6	8	9	8
—	—	—	—	—	—	—	—	—

## II. TWO-PLACE ADDITION—NO CARRYING

44	61	35	74	45	34
23	15	43	25	32	63
—	—	—	—	—	—
16	42	26	49	18	53
53	36	52	30	41	46
—	—	—	—	—	—

## III. TWO-PLACE ADDITION—CARRYING

28	62	33	55	37	54
4	8	9	8	6	7
—	—	—	—	—	—
72	37	64	19	87	47
9	6	7	8	5	9
—	—	—	—	—	—

## IV. TWO-PLACE ADDITION—CARRYING

32	63	35	83	54	46
72	54	81	45	63	72
—	—	—	—	—	—
38	24	45	37	48	36
34	58	45	26	37	34
—	—	—	—	—	—

## V. THREE-PLACE ADDITION—NO CARRYING AND CARRYING

1	4	6	3	2	7	4	8
6	8	2	3	4	5	2	3
1	4	5	7	3	3	3	2
—	—	—	—	—	—	—	—
	43	23	28	53	59	36	
	72	14	42	41	48	40	
	43	38	39	77	33	83	

## VI. FOUR-PLACE ADDITION—CARRYING

4	7	2	7	5	7
8	4	8	7	8	2
3	5	6	2	4	9
1	6	1	6	6	3
—	—	—	—	—	—
43	67	25	37	87	56
26	43	16	24	50	47
35	12	37	62	43	24
15	56	84	19	18	55
—	—	—	—	—	—

## VII. FIVE-PLACE ADDITION—CARRYING

3	7	5	4	5	8
3	3	9	3	8	2
5	6	7	9	7	7
8	9	6	4	6	6
7	3	4	5	3	7
—	—	—	—	—	—
47	53	68	79	54	38
25	72	45	38	63	24
64	13	36	42	32	46
34	35	27	91	18	50
13	76	75	23	37	95
—	—	—	—	—	—

## I. SIMPLE SUBTRACTION

7	9	8	6
—3	—3	—5	—4
—	—	—	—
5	8	7	6
—4	—6	—4	—6
—	—	—	—
9	8	7	9
—6	—7	—3	—7
—	—	—	—

## II. SUBTRACTION FROM TENS

14	19	18	17
—2	—3	—5	—6
—	—	—	—
15	13	16	19
—4	—3	—3	—6
—	—	—	—
18	17	18	19
—8	—5	—4	—7
—	—	—	—

## III. SUBTRACTION FROM TENS

12	18	13	11
—7	—9	—5	—9
—	—	—	—
17	14	16	13
—8	—8	—9	—9
—	—	—	—
15	16	17	14
—7	—7	—9	—9
—	—	—	—



## IV. SUBTRACTION FROM TWENTIES

27	23	29	28
<u>-4</u>	<u>-2</u>	<u>-7</u>	<u>-8</u>
24	28	26	29
<u>-3</u>	<u>-5</u>	<u>-5</u>	<u>-5</u>
22	25	27	29
<u>-2</u>	<u>-4</u>	<u>-6</u>	<u>-7</u>

## V. SUBTRACTION FROM TWENTIES

22	24	25	21
<u>-8</u>	<u>-7</u>	<u>-6</u>	<u>-5</u>
27	21	23	28
<u>-8</u>	<u>-4</u>	<u>-4</u>	<u>-9</u>
26	23	22	27
<u>-8</u>	<u>-9</u>	<u>-7</u>	<u>-9</u>

## VI. TENS FROM TWENTIES

22	29	25	28
<u>-11</u>	<u>-15</u>	<u>-14</u>	<u>-13</u>
26	27	26	24
<u>-12</u>	<u>-16</u>	<u>-14</u>	<u>-13</u>
24	28	29	27
<u>-10</u>	<u>-12</u>	<u>-16</u>	<u>-14</u>

## VII. TENS FROM THIRTIES

38	37	36	39
<u>-14</u>	<u>-15</u>	<u>-12</u>	<u>-13</u>
38	39	38	36
<u>-15</u>	<u>-16</u>	<u>-17</u>	<u>-13</u>
37	35	39	38
<u>-14</u>	<u>-13</u>	<u>-18</u>	<u>-12</u>

## VIII. TENS FROM THIRTIES

34	36	35	31
<u>-18</u>	<u>-17</u>	<u>-17</u>	<u>-19</u>
37	33	38	33
<u>-18</u>	<u>-16</u>	<u>-29</u>	<u>-17</u>
34	35	37	33
<u>-16</u>	<u>-19</u>	<u>-18</u>	<u>-19</u>

## IX. BORROWING

48	43	57	68
<u>-26</u>	<u>-18</u>	<u>-29</u>	<u>-15</u>
73	91	88	90
<u>-29</u>	<u>-38</u>	<u>-34</u>	<u>-36</u>
65	87	89	51
<u>-44</u>	<u>-53</u>	<u>-16</u>	<u>-39</u>

## SUMMARY CARD

9	18	17	28
<u>-4</u>	<u>-6</u>	<u>-8</u>	<u>-5</u>
23	28	37	35
<u>-9</u>	<u>-12</u>	<u>-14</u>	<u>-27</u>
66	80	101	95
<u>-48</u>	<u>-29</u>	<u>-83</u>	<u>-7</u>

## I. SIMPLE MULTIPLICATION

6	9	5	5
<u>3</u>	<u>2</u>	<u>5</u>	<u>6</u>
7	4	8	3
<u>4</u>	<u>6</u>	<u>4</u>	<u>8</u>
3	3	9	3
<u>7</u>	<u>5</u>	<u>3</u>	<u>6</u>

## II. SIMPLE MULTIPLICATION

5	7	5	6
<u>9</u>	<u>7</u>	<u>8</u>	<u>6</u>
4	6	9	8
<u>8</u>	<u>7</u>	<u>5</u>	<u>5</u>
9	6	4	7
<u>4</u>	<u>8</u>	<u>9</u>	<u>6</u>

## III. SIMPLE MULTIPLICATION

9	9	7	8
<u>6</u>	<u>9</u>	<u>8</u>	<u>9</u>
9	8	9	6
<u>8</u>	<u>7</u>	<u>7</u>	<u>9</u>
8	7	12	12
<u>8</u>	<u>9</u>	<u>8</u>	<u>6</u>

## IV. MULTIPLICATION OF TENS—NO CARRYING

41 3 —	33 2 —	42 4 —	53 3 —
43 2 —	14 2 —	32 3 —	52 3 —
34 2 —	23 3 —	43 3 —	54 2 —

## V. MULTIPLICATION OF TENS—CARRYING

19 6 —	32 7 —	23 9 —	35 7 —
33 7 —	27 7 —	26 5 —	18 6 —
29 9 —	32 6 —	37 8 —	24 7 —

## VI. MULTIPLICATION OF HUNDREDS—NO CARRYING

214 2 —	312 3 —	432 2 —	231 3 —
132 3 —	314 2 —	243 3 —	133 3 —
342 2 —	234 2 —	103 3 —	231 2 —

## VII. MULTIPLICATION OF HUNDREDS—CARRYING

351 3 —	426 2 —	373 4 —	260 6 —
293 4 —	735 3 —	282 4 —	405 7 —
451 8 —	170 9 —	375 3 —	428 5 —

## I. SIMPLE DIVISION

$2\overline{)6}$	$4\overline{)4}$	$2\overline{)8}$	$7\overline{)7}$
$2\overline{)4}$	$7\overline{)0}$	$3\overline{)6}$	$5\overline{)0}$
$8\overline{)8}$	$3\overline{)9}$	$4\overline{)8}$	$3\overline{)6}$

## II. SIMPLE DIVISION

$2\overline{)16}$	$3\overline{)15}$	$2\overline{)18}$	$4\overline{)16}$
$7\overline{)14}$	$3\overline{)12}$	$5\overline{)10}$	$6\overline{)18}$
$3\overline{)18}$	$5\overline{)15}$	$9\overline{)18}$	$4\overline{)12}$

## III. SIMPLE DIVISION

$5\overline{)25}$	$3\overline{)27}$	$2\overline{)22}$	$4\overline{)28}$
$7\overline{)21}$	$5\overline{)20}$	$6\overline{)24}$	$4\overline{)20}$
$7\overline{)28}$	$4\overline{)24}$	$9\overline{)27}$	$3\overline{)21}$

## IV. SIMPLE DIVISION

$7\overline{)56}$	$6\overline{)42}$	$9\overline{)36}$	$5\overline{)45}$
$7\overline{)63}$	$9\overline{)81}$	$8\overline{)48}$	$8\overline{)72}$
$12\overline{)84}$	$3\overline{)32}$	$9\overline{)63}$	$8\overline{)64}$

## V. DIVISION

$2\overline{)26}$	$3\overline{)29}$	$2\overline{)88}$	$2\overline{)28}$
$2\overline{)42}$	$2\overline{)46}$	$3\overline{)63}$	$2\overline{)88}$
$4\overline{)84}$	$4\overline{)68}$	$3\overline{)96}$	$2\overline{)48}$

## VI. DIVISION

$3\overline{)357}$	$4\overline{)328}$	$3\overline{)363}$	$5\overline{)545}$
$3\overline{)303}$	$3\overline{)328}$	$4\overline{)364}$	$4\overline{)480}$
$5\overline{)455}$	$9\overline{)360}$	$7\overline{)637}$	$9\overline{)819}$



## VII. DIVISION

$2\overline{)32}$	$3\overline{)42}$	$2\overline{)34}$	$3\overline{)48}$
$3\overline{)54}$	$3\overline{)45}$	$5\overline{)65}$	$3\overline{)72}$
$3\overline{)84}$	$6\overline{)72}$	$2\overline{)54}$	$3\overline{)81}$

## VIII. DIVISION

$3\overline{)129}$	$8\overline{)720}$	$2\overline{)102}$	$3\overline{)183}$
$8\overline{)489}$	$9\overline{)639}$	$7\overline{)357}$	$8\overline{)560}$
$6\overline{)300}$	$6\overline{)366}$	$9\overline{)188}$	$8\overline{)328}$

## IX. DIVISION

$6\overline{)428}$	$5\overline{)453}$	$4\overline{)482}$	$7\overline{)493}$
$12\overline{)485}$	$7\overline{)426}$	$9\overline{)458}$	$8\overline{)487}$
$6\overline{)483}$	$4\overline{)445}$	$4\overline{)406}$	$11\overline{)443}$

## X. DIVISION

$2\overline{)8}$	$3\overline{)6}$	$4\overline{)16}$	$3\overline{)18}$
$6\overline{)24}$	$3\overline{)48}$	$7\overline{)63}$	$3\overline{)39}$
$6\overline{)426}$	$3\overline{)57}$	$7\overline{)428}$	$5\overline{)375}$

PLATOON AND DUPLICATE SCHOOLS IN  
PHILADELPHIA

EDWIN Y. MONTANYE

*Principal of the Joseph C. Ferguson School, Philadelphia, Pennsylvania*

**D**URING the last few years administrative officers have given considerable attention to the problem of making a more efficient use of school buildings. Along with this movement there have come into existence several plans known as the Gary system, the work-study-play plan, alternating schools, companion classes, the duplicate plan, and platoon schools. All of these systems have many features in common and are differentiated from the prevailing type of school because of certain educational and administrative advantages. Formerly, the conventional school organization provided a teacher for every class

and a classroom for every teacher. The teacher remained in the same room throughout the day with the one class teaching all subjects of the grade.

The newer type of organization provides a more enriched program than that afforded in the traditional school and at the same time increases the housing capacity of the building. In Philadelphia there are two forms of the above mentioned schools in operation, which for convenience of designation have been termed duplicate schools and platoon schools. The duplicate schools have been in effect since 1918 and will probably become a permanent part of the Philadelphia system; the platoon schools are intended to carry over only during the present building shortage emergency. The duplicate schools are located in buildings which have been converted or especially constructed to provide for the new organization. The platoon schools call for no change in building construction, but simply divide the enrolment into two or three groups who use the building at different periods of the day.

*Development of the duplicate plan*—The duplicate school has been, in part, the outgrowth of a policy of the department of superintendence to utilize rooms vacated when classes work in the various shops and special rooms in the school. Formerly these vacated rooms were idle for a period or more of the day, although there may have been some pupils enrolled in the school who were on part time. These scattered vacant rooms occurred largely in schools where seventh and eighth grades received instruction in mechanic arts and domestic science rooms, also where pupils of lower grades were given hand work and sewing lessons. Where there were sufficient classes in an organization, one and sometimes two rooms were empty every period of the day. Under the new arrangement one or two additional classes were assigned to these vacated rooms on a rotating program and that capacity of the building was correspondingly increased. Furthermore the superintendent effected a limited transfer of upper-grade children in certain designated concentration centres making it possible to eliminate any such vacant rooms throughout the entire city.

At first it was planned to take care of these extra classes by departmental instruction without the employment of ten additional teachers. This could be done whenever seventh- and eighth-grade classes were assembled in one building, each class vacating a room for a double period in domestic science and mechanic arts. An additional class could be accommodated in

the vacated room and the entire weekly program carried out in the several departments. However, this necessitated a somewhat complicated schedule and placed an additional burden on the ten teachers involved. One of the ten teachers was obliged to keep the records of two classes, and all teachers were deprived of one or more free periods previously enjoyed under the old system. With the more extended introduction of the duplicate plan this teacher-saving device was eliminated and only the building economy feature retained.

In addition to this capacity gain the duplicate school made further expansion in the existing buildings by converting one or two classrooms into an auditorium by removing stationary desks and partitions. Auditorium chairs doubled the seating capacity of this portion of the building, and exercises usually conducted in morning assembly supplemented with other appropriate teaching activities were conducted here in successive periods throughout the day. In some buildings a still greater housing gain was made by converting a well-lighted basement into a gymnasium or playroom where classes could spend a period in appropriate activities.

Philadelphia has twenty schools organized on the duplicate plan, and thirty more are about to be converted to this type. Most of these schools are in buildings which have been slightly altered to accommodate the new type of organization. Nine of the buildings are of recent construction and contain standard auditoriums, gymnasiums, and special rooms well adapted to the duplicate plan. In the converted buildings, the housing capacity has been increased ten to thirty per cent by the minor alterations and the adoption of the new plan of organization. For example, the James G. Blaine School, prior to reorganization, consisted of twenty-seven academic classrooms. Here twenty-one classes were receiving full-time instruction occupying one room each; twelve classes were on part time sharing six rooms for one half day. After slight alterations, costing less than one thousand dollars, this building was converted into a duplicate school. All part-time classes were put on full-time program and these with the others previously on full time made a total of thirty-five classes accommodated. An examination into this situation will show that this building, normally intended for twenty-seven classes, is now taking care of thirty-five, a gain of twenty-nine per cent, and approximately five hundred children are advanced from a three-hour day to full-time instruction. Furthermore, at the time of the conversion of the Blaine School,

FLOOR PLAN

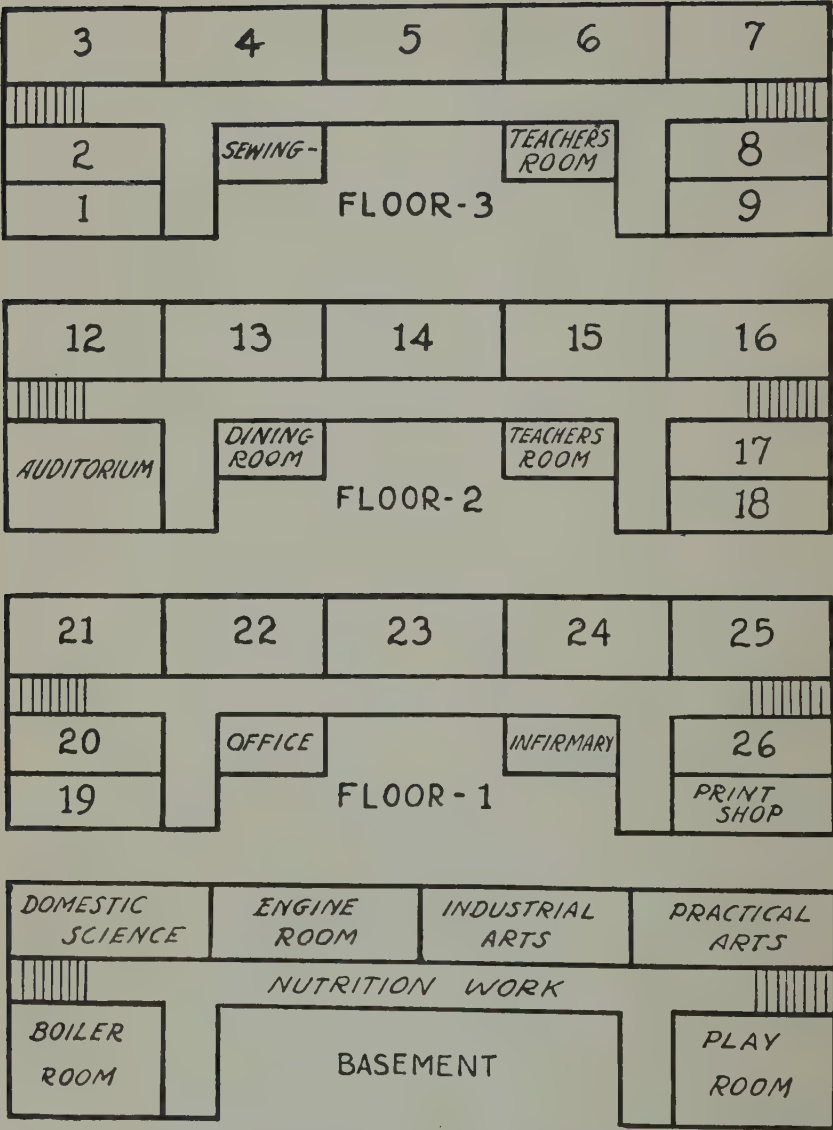


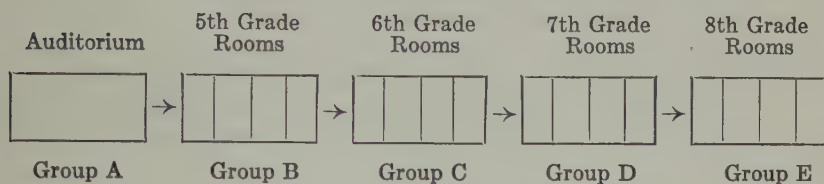
FIG. 1—James G. Blaine School, Philadelphia



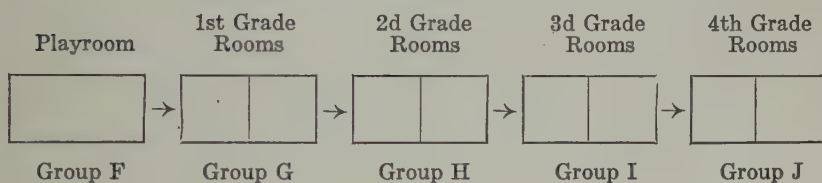
a printing shop was installed in a regular classroom and in addition to taking care of seventh and eighth-grade boys in the home school, twelve classes from two neighboring schools were accommodated in the shop for one period each week.

The program of this school is so arranged that all pupils from grades five to eight spend one period in the auditorium each day; similarly all pupils in grades one to four spend a

## Cycle I



## Cycle II



## Cycle III



FIG. 2—Group Movements of Cycles in the Blaine School

period in the playroom. The work conducted in the auditorium and playroom must of necessity be of such a nature that large numbers can be taught at one time. This situation requires pupils to be of parallel grades or nearly of parallel grades when assembled together. To facilitate this arrangement the pupils in the school are organized in cycles by groups of four classes in the departmental grades and by groups of two classes in the non-departmental grades.

Cycle I consists of grades five to eight where pupils are working on the departmental plan. Group A begins the day in the auditorium, and at successive periods they move to rooms vacated by groups B, C, D, and E, while the latter, in turn, as-

semble in the auditorium. It will be observed that Group A constitutes a floating unit, the pupils of which must accommodate themselves to desks of varying size through grades five to eight. For this reason pupils of the sixth grade are selected who are, so to speak, a middle-sized class and will experience little inconvenience in the range and variety of sittings.

Cycle II is composed of pupils in grades one to four and are arranged in groups of two classes each. These pupils are under the instruction of the home-room teacher throughout the term remaining in the home room four periods of the day and moving to the playroom for one period. Group F begins the day in the playroom, moving at successive periods to rooms of groups G, H, I, J, while these children take their turn in this department. The floating group are third-grade pupils and can use desks of grades, one, two, and four without difficulty.

The playroom provides a kind of junior auditorium. It is furnished with a piano, talking machine, stereopticon, and other paraphernalia suitable for conducting singing, physical training, visual instruction, dramatic work, and other special exercises directly connected with the regular curriculum. Cycle III constitutes a group of special activities, consisting of domestic science, sewing, industrial art, mechanical arts, and printing. Pupils of grades five to eight occupy these rooms during one period per week.

The duplicate plan in Philadelphia schools does not involve any lengthening of the school day or any change in time allotment for the several subjects of the curriculum. The amount of time devoted to the so-called special activities, such as shop and domestic science, is the same in duplicate schools in this city as that in the conventional schools.

*Educational advantages of the duplicate plan*—From an experience of five years with the working of the duplicate plan in two Philadelphia schools the writer is convinced that this type of organization has distinct educational merits which justify its extension wherever building structure makes it possible. Among the advantages of outstanding importance the following deserve particular mention:

1. The plan concentrates effort and preparation for instruction in regular and special subjects of the curriculum. This is particularly true in the peculiarly difficult activities, such as are conducted in the auditorium, playroom, gymnasium, and other special departments. Each leader here becomes a specialist in his particular subject. The teacher gradually accumulates a

wealth of material and resources which could not otherwise be possible if his efforts were scattered over a dozen or more other activities, which usually make their demands on the regular teacher.

2. It develops self-reliance on the part of pupils making the promotion from grade to grade and the transition to high school less disconcerting. The child gradually accommodates himself to a varying program in following the course of a simple daily and weekly roster. The pupil early learns how to read and follow a program and to take care of himself in a somewhat complex organization. Teachers in this particular school have had pupils testify to the readiness and ease with which they have adjusted themselves upon entering high school.

3. The duplicate school maintains a greater interest for the pupils. There is frequent opportunity to relax in passing from academic rooms to a special activity, and a kind of suspended anticipation always exists as periods close and pupils enter a new environment.

4. The auditorium exercises, being a regular part of the school activities, afford many opportunities for self-expression. Unlike the school assembly in classrooms where pupils come together on special occasions, the daily auditorium meeting is a working period. Here the child can stand before his fellows and address them from the platform and receive instruction in the art of public speaking. This is an experience which has unusual possibilities and is splendid training in oral English. Recently a girl, in moving from the neighborhood of a duplicate school, was transferred to a school not so organized and without an auditorium. She was so disappointed that she sought out a duplicate school many squares from her new home in order to get the experience of participating in the auditorium exercises. The girl was of foreign birth having been in America only one year. She had learned from some high-school acquaintances that she would frequently have opportunity to speak in the auditorium of the high school when she was admitted there, consequently she wanted the training which only the duplicate school could give her. Three high schools in Philadelphia which receive pupils from a certain duplicate school have on many occasions remarked that these children are conspicuous in their ability to speak in assembly and to debate with noticeable poise and self-assurance.

5. The duplicate plan socializes the school by its variety of interests and activities in auditorium, playroom, and other special departments. The pupils come in contact with a larger

portion of the teaching force in the school faculty, making for better articulation and coöperation on the part of all concerned. Teachers become acquainted with a larger portion of the enrolment, and the school is like one big family in whose welfare all are interested, because all have a part in the daily school life. The fact that each department has its separate contribution to the child's daily program makes coöperation an absolute necessity, hence teacher conferences are of frequent occurrence in the duplicate school. In the auditorium in Philadelphia duplicate schools children receive visual instruction with motion pictures during one or two periods a week. The pictures illustrate subjects taught in the geography, history, civics, and hygiene departments. This necessitates preparation and follow-up and both pupils and teachers in all departments concerned are brought closer together by such articulation of activities. Similarly dramatic work in the auditorium and playroom is frequently correlated with the instruction in literature, history, civics, and geography classes bringing contact between teachers and pupils involved.

*Platoon school an expedient*—The platoon plan in Philadelphia schools divides the school into two or three groups in which pupils use the building during different parts of the day. While this plan can be easily applied to any type of building, nevertheless other difficulties are encountered in the homes of the pupils. The family life is somewhat disconcerted by reason of the coming and going of children of the same family at different times of the day. Breakfast and lunch must be prepared at unusual hours and a staggered time of arrival and departure leads to endless complications and adjustments in the domestic life of parents and children. This type of organization provides a minimum school week of twenty-two and a half hours, as against a normal week of twenty-five hours, but also as against a traditional part-time week of fifteen hours. On this ground alone this organization is justifiable.

*The effect on Philadelphia building program*—Philadelphia is carrying on a fifteen-million-dollar building program in order to meet immediate needs. The completion of these structures will eliminate the so-called platoon plan which has been introduced simply to reduce part-time attendance. Nevertheless, the building program provides for the erection of new schools modeled on the duplicate plan. Each building will contain an auditorium capable of seating approximately one third of the school's enrolment. There will be special rooms for those activi-



ties which are common to the duplicate school program and gymnasium, lunch room, library, and other accommodations will make possible all the advantages claimed for this new type of organization.

At the same time Philadelphia is gradually building a number of junior high schools which will eventually absorb all of the seventh- and eighth-grade pupils. The junior high schools carry out the duplicate plan idea in that they make constant use of all regular and special rooms throughout the day. Auditoriums in these schools are of moderate size and are intended to be used for instruction as well as for school assembly. Naturally the elementary schools with grades one to six will be somewhat curtailed in respect to special shop activities in losing the upper grades, but still this will not interfere with the use of the duplicate plan in the lower schools.

TABLE 1—MINUTES PER WEEK GIVEN TO ELEMENTARY SCHOOL SUBJECTS

Subjects	Grades							
	1	2	3	4	5	6	7	8
Opening Exercises . . .	60	60	60	60	60	60	60	60
Recess . . . . .	150	150	150	150	75	75	75	75
Arithmetic . . . . .	90	150	205	225	225	225	225	225
Art Education . . . . .	135	135	135	150	90	90	90	90
Civics . . . . .	20	20	40	40	50	50	50	50
<sup>1</sup> English . . . . .	1A 180 1B 240	240	290	480	480	480	405	405
Geography and Na- ture Study . . . . .	20	20	105	105	105	105	105	105
History . . . . .	20	20	40	60	90	90	90	90
Music . . . . .	60	60	60	60	60	60	60	60
Penmanship . . . . .	90	90	90	90	75	75	60	60
Physical Training . . .	60	60	60	60	60	60	60	60
Hygiene . . . . .	15	15	15	20	40	40	40	40
Reading . . . . .	1A 600 1B 540	480	250	.....	.....	.....	.....	.....
Home Economics (Cooking) or Me- chanical Arts . . . . .	.....	.....	.....	.....	.....	.....	120	120
Home Economics (Sewing) or Indus- trial Arts . . . . .	.....	.....	.....	.....	90	90	60	60
Total minutes per week . . . . .	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500

<sup>1</sup> Includes spelling in lower grades and reading in upper grades.

TABLE 2.—DUPLICATE PLAN USED IN BLAINE SCHOOL, FALL OF 1922

[illegible]

GROUP 4

8 17 18	Miss Leary Miss Hoppock Mrs. Schnipp Miss Wolf	8A1 8A2 8A1 8A1	English Science and Drawing Hist., Civics, Music Arith. and Pen.	8 18 17 A 9 9 8 18 A 17 17 9 8 A 18 0 S&K A 8	18 17 9 A 8 8 18 17 A Ps 9 S&K A 17 17 9 8 A 18	17 S&K A 18 18 17 9 A 8 8 18 17 A 8 9 Ps 18 A 17	9 8 18 A Ps 17 9 8 A 18 18 17 9 A 8 8 18 17 A 9	8 18 17 A 9 9 8(18)S&K 17 9 8 A Ps 18 17 9 A 8
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GROUP 5

7 6 5 4	Miss Taylor Dr. Fuelschmann Miss Woods Mr. Robinson	8B 6B 8B 7B2	Arith. and Pen. Science and Drawing English Hist., Civics, Music	7 6 5 4 A 6 5 4 7 A 5 4 7 Ps A 4 7 6 S&K	6 5 4 Ps A 5 4 7 S&K 4 7 6 5 A 7 6 5 4 A	5 4 7 S&K 4 7 6 5 A 7 6 5 4 A 6 5 Ps 7 A	4 7 6 5 A 7 6 5 4 A 6 S&K 7 A 5 4 7 6 A	7 6 5 4 A 6 5 4 Ps A 5 4 7 6 A 4 7 6 5 A
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ARTS GROUP

28&30 31 29 27	Mr. Riddle Malvestor Miss Mawson Miss Blackburn Miss Young	8-7 8-5 6-5 6-5	Domestic Science and Shop Domestic Art Industrial Arts Printing	K 18 4 A3 B2 5 3 A3 B2 Mc Mc Mc Mc 5 3	1 17 6 B1 A1 7 9 B1 A1 Mc Mc Mc Mc 7 9	2 8 7 12 18 4 A2 Mc Mc A2 12 18 4 K K	12 5 3 27 B1 1 0 8 16 14 S2 2 7c1 1 K 8	K 7B1 9 13 15 6 17 13 15 Sfo Sa Sa 6 17
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PRIMARY CYCLE NON-DEPARTMENTAL

			Time-Periods		Key to Roster	
			Games	Periods	A—Auditorium	S. K. Shop & Kitchen
35-36 21-22 19-20 35 23-24M 26-9M	Misses White and Josephron Mr. Klingley Galton Mr. Ranbo Nengle Britz Posternock and Schnerr Pancoast M. Bolton	3&4 2 1 1 2&3 4	Stories..... Lantern Talks..... Dramatics..... Reading, etc.....	1-9-9.55 2-9.55-10.45 3-11.05-12 4-1.30-2.30 5-2.30-3.30	K—Kelley Sch. Mc. McIntyre S. St. Stokley Sch. Sa. Sartham Sch.	H. S. Hand Work & Sewing P. S. Printing & Sewing O No Class (Special)
35 36	Miss Josephron Miss White	Periods 1 2 3 4 5 Play Room 22 22 24 26 Play Room 21 21 23 25	Classes from other schools instructed in Blaine Shops.			
			Number of pupils from other schools.....			
			Average Number of pupils in Blaine School.....			
			21			
			500			
			1500			

Grade	Teacher	Class	Subject	Monday	Tuesday	Wednesday	Thursday	Friday
7B	Mr. Ross	28	English Literature	28 MA DS 25 24	24 28 27 26 R	25 24 28 27 26	S 26 25 24 R 27	27 26 25 24 28
8A	Miss Doman	27	Drawing	27 26 R 24 28	28 MA DS 25 24	24 28 27 26 25	R 24 S 28 27 26	26 25 24 28 27
8A	Mr. Bond	26	Hist., Civics, Pen.	26 R 24 28 27	27 26 25 24 28	28 MA DS 25 27	24 R 27 S 26 25	25 24 28 27 26
8B	Mr. Ward	25	Sciences, Music	25 24 28 27 26	26 25 24 28 27	27 26 25 R 28	S 28 27 26 25 24	24 MA DS R 25
8B	Miss Niewig	24	Arithmetic	R 23 27 26 25	25 24 28 27 26	26 25 R 28 24	27 MA DS 24 28	28 27 26 25 24
7A	Miss Coons	23	Hist., Civics, Pen.	23 22 21 20 19	19 23 22 21 20	20 19 23 22 21	MA DS 20 R 23 22	S 22 21 21 19 R
7A	Miss Hoog	22	Arithmetic	22 21 20 19 23	23 R 21 20 19	19 R 22 MA DS	20 19 23 22 21	21 20 19 23 22
7B	Miss Levin	21	Literature, Drawing	21 20 19 R 22	22 21 20 19 23	23 22 21 20 19	19 23 22 MA DS	S 20 23 R 22 21
7B	Miss Harris	20	English, Geography	20 19 23 MA DS	21 20 R 23 22	22 21 20 19 22	23 22 21 20 R	19 19 22 21 20
7A	Miss Hemming	19	Music	19 23 22 21 R	20 19 23 22 21	21 20 19 23 R	22 21 20 19 23	S 23 22 20 MA DS
6B	Miss Fisher	18	Arithmetic	R 17 16 IA 8	8 18 17 16 9	9 8 18 17 16	R 9 8 18 17	17 16 9 8 18
6B	Miss Gühster	17	English	17 16 9 8 18	R 17 16 9 8	8 18 17 IA S	9 8 18 R 16	16 9 8 18 17
6A	Miss Jack	16	Literature, Drawing, Music	IA S 9 8 18 R	17 16 9 8 18	R 17 16 9 8	8 18 17 16 9	9 8 18 17 16
6B	Mrs. Biddle	9	Geography, Read., Phys.	9 8 18 17 16	16 9 8 IA S	17 R 9 8 18	18 17 16 9 8	R 18 17 16 9
6A	Mrs. Medler	8	Hist., Civics, Pen.	8 18 17 16 9	9 8 18 R 16	16 9 R 18 17	17 16 9 IA S	18 17 16 9 8
7A	Mr. Nemir	37	Physical Training	24 25 26 22 21	R 22 19 MA DS	R 23 26 24 20	21 28 25 21 20	S R 23 27 20 19
6A	Miss Olsen	38	Physical Training	18 27 25 23 17	18 27 26 17 25	18 16 8 16 R	16 26 19 17 18	8 R 23 1/4 S
5A	Mrs. Simon	39	Non Departmental	16 1/11 9 8	12 12 1/13 18 R	14 1/13 13 21 22	15 1/10 10 8 R	4 4/6 26 23
5A	Miss McGlyn	10	Non Departmental	Monday	Tuesday	Wednesday	Thursday	Friday
5B	Mrs. Roop	11	except	/I-AS/R	/R	/R	/I-A-S	/R
5B	Miss Reynolds	12	Gymnastics	/R	I-A-S/R	/I-A-S	/R	/R
5B	Miss Fretter	13	Industrial Arts	/R	/R	/I-A-S	/R	/R
5A	Miss Oldach	14	Sewing	/R	/R	/I-A-S	/R	/R
8-7	Mr. Greenfield	28	Mechanics Arts	T 28 28 20 20	T 27 27 37 37	T 26 26 22 22	23 24 24 21 21	T 25 25 19 19
8-7	Miss Raacke	28	Domestic Science	T 28 28 20 20	T 27 27 37 37	T 26 26 22 22	23 24 24 21 21	T 25 25 19 19
6-5	Miss Groman	16	Domestic Art	16 1/11 18 18	12 1/13 39 9 9/	14 1/13 17 17/	23 27 26 25 24	19 19 23 21 20
5-6	Industrial Arts	16	Domestic Art	16 1/11 18 8	12 1/13 39 9 9/	14 1/13 17 17/	15 1/10 10 8 8/	4 4/6 38 38/
7-4	Miss Brady	16	Domestic Art	16 1/11 18 8	12 1/13 39 9 9/	14 1/13 17 17/	15 1/10 10 8 8/	4 4/6 38 38/
Group	Reporting Reporting With Teacher With Teacher	to to in in	Mrs. Nemis Miss Olsen Gymnasium Play Ground	24 26 27 21 19 18 14/ 11 16 5/ 1/3/	37 22 20 28 17 10 13 8 39 1/ 4 2/	37 22 24 25 18 16 9 8 11 38 1/3 1/3	27 26 23 28 20 18 12 13 17 39 15/	37 21 25 23 9 38 12 10 14 5/ 1/2 3/
	Off Periods		Teacher of Room	16/38 11 9 25 1/14 14/ 8	12 1/13 39 87 39 10/ 1/3 18	14 27 24 21 22 1/13 13 11/ 9	25 38 10 28 19 15 1/10 13/ 8 39	37 1/12 26 23 10/ 1/14



By the combined use of the duplicate plan and the platoon schools Philadelphia will nearly eliminate part time in the schools by the beginning of the spring term in February, 1924. This will be a marked advance over the situation which confronted the school system in this city in September, 1923, when thirty-nine thousand children were on a part-time schedule. To accomplish this adjustment Superintendent Edwin C. Broome made a survey of the seating and housing accommodations in all schools converting buildings, where practicable, to operate on the duplicate plan. In other buildings where part time was in effect and the conditions did not justify building alterations, the platoon organization was adopted. Of the latter type thirty-seven will be in operation by the beginning of the spring term in February, 1924.

*Time allotment and programs*—Table 1 gives the amount of time allotted to each subject per week in the elementary grades. This schedule can be approximated in schools on the duplicate plan.

Tables 2 and 3 show programs taken from two Philadelphia schools operating on the duplicate plan. The numbers opposite the names of teachers indicate the several rooms in which the pupils report throughout the day and week. It will be observed that each teacher is responsible for one or two subjects of instruction, and pupils take these subjects each day as they report in the respective rooms. An inspection of the schedule shows that pupils taking history or arithmetic the first hour on Monday will have these subjects the second period on Tuesday, the third period on Wednesday, and so on to the end of the week. This adjusts any inequalities of time or advantage of early hours when pupils are less fatigued, and the like. Floating classes are sometimes on the departmental plan; sometimes, where the range of rooms is unduly large, the teacher moves about with her class as indicated.

TABLE 4—COMPARATIVE STATISTICS  
PERCENTAGE OF ATTENDANCE AND LATENESS ON ENROLMENT

Blaine School			Average for Philadelphia Schools	
Year	Attendance	Lateness	Attendance	Lateness
1916.....	89.5	.1	88.6	.4
1917.....	93.0	.2	89.9	.4
1918.....	90.6	.3	86.8	.4
1919.....	89.8	.3	87.5	.3
1920.....	90.6	.3	87.8	.4
1921.....	89.8	.3	88.7	.3
1922.....	91.9	.3	89.2	.3
1923.....	92.0	.3	88.0	.3

TABLE 4 (Continued)

## PROMOTIONS

Blaine School			Average for Philadelphia Schools	
Year	Per cent Promoted	Per cent 20 or more months in Grade	Per cent Promoted	Per cent 20 or more months in Grade
June, 1916.....	88.7	.6	84.0	3.0
June, 1917.....	88.2	1.2	84.1	2.9
June, 1918.....	89.1	.9	83.5	2.6
June, 1919.....	88.9	1.0	83.5	3.2
June, 1920.....	90.2	1.3	85.0	3.0
June, 1921.....	88.5	.9	84.5	2.6
June, 1922.....	89.6	.4	84.9	2.7
June, 1923.....	91.3	.7	85.7	2.6

## AGE-GRADE TABULATION

## Per cent Above Normal Age in Grade

Blaine School			Average for Philadelphia Schools	
Year	Boys	Girls	Boys	Girls
1915.....	20.8	23.2	23.6	25.8
1916.....	22.4	23.5	23.5	26.1
1917.....	21.9	19.1	27.7	25.1
1919.....	18.2	16.0	27.2	23.5
1921.....	17.3	15.2	27.8	23.3

## Below Normal Age

Blaine School			Average for Philadelphia Schools	
1917.....	11.3	18.1	9.0	10.1
1919.....	13.1	14.9	9.4	10.9
1921.....	13.5	15.1	9.5	11.1

The above figures are taken from the annual statistical reports of the Philadelphia schools.

## THE PLATOON SCHOOL IN AKRON, OHIO

OTIS C. HATTON

*Principal, Teachers College Observation School, Akron, Ohio*

THE Platoon School made its appearance in Akron in 1920 and has grown until now we have fifteen of the twenty-nine elementary schools organized on this plan. Of the fifteen schools only two are new buildings, specifically constructed for this type of organization; several of the others, however, are comparatively new and have gymnasium and auditorium. Two have been remodeled to provide auditorium and gymnasium facilities.

Akron's building program for the next five years is outlined as follows: During the current year, two annexes to include auditorium and gymnasium; in 1925, two new buildings adapted to the needs of the platoon school; in 1926, two annexes and one new building suitable for platoon organization; in 1927, two new buildings—one a high school and the other an elementary school for platoon organization; and in 1928, one new building adaptable to platoon organization.

Shortage of funds and overcrowded buildings caused Akron school authorities to seek a type of organization to relieve these conditions and at the same time permit the curriculum to be enriched to meet the modern objectives in education; to procure increased teaching efficiency; and to use more economically the school plant. These needs may be taken care of to some extent

GROWTH OF PLATOON SCHOOLS

Year	School	Per Cent
1921.....	1	3.7
1922.....	9	32.1
1923.....	15	51.7

by a departmental type of organization but an objection frequently offered to this type of elementary school organization is that the personal influence of the teacher is lost. The platoon plan meets this objection in a satisfactory manner and at the same time secures the advantages of departmentalization in the special subjects. The pupil is, under one teacher (the home-room teacher) for one half of his time and certainly this is time enough for the personality of the teacher to be exemplified. The influence of the special teacher is also felt, since in all probability she will have the pupil for a number of years.

The Frank H. Mason School, of which the writer is principal, was planned to house 1240 pupils. It contains 31 class rooms, gymnasium, auditorium, shop, and domestic art rooms. By reference to the programs you will note the average assignment of two sections to the gymnasium, two to the auditorium, one to the shop, one to the domestic art, thus increasing the capacity of the buiding by six sections or  $(6 \times 40)$  240 pupils, or about 20 per cent. The superintendent has estimated the increase in building capacity throughout the city to be 15 to 25 per cent.

The usual school day is approximately five and one half hours in length, generally from 8:30 to 3:20 with a noon intermission from 11:30 to 1:00. The day is composed of ten periods, six 30-minute periods in the forenoon and four 35-minute periods in the afternoon. This arrangement makes it possible to operate without relief teachers, the regular teachers being in charge the ten periods unless the program provides for free periods. The complete programs as outlined for the Mason School allow on an average four free periods per week for the special teachers. The home-room teachers are in charge of the recess periods and this arrangement allows a twenty-minute relaxation period in the forenoon and the same in the afternoon for these teachers. All pupils are allowed a ten-minute recess during each session. These are only basement recesses for the upper grades, but the lower grades being on the ground floor are allowed to go out-of-doors. Half the pupils have recess immediately preceding the change from the home room to the special activities and the other half following the change.

Akron's platoon plan differs somewhat from that used in other cities. Our school hours are the same as in the traditional schools—five and one half hour day, while other cities run a six-hour day. This time is desirable from the standpoint of educational opportunity, but by using the regular school day the added expense of relief teachers is saved. The primary platoon is also developed, these grades being handled by primary teachers in rooms specially equipped for them. This also holds true in a general way for the intermediate and grammar grades. No play activity is provided in addition to the gymnasium period.

Table 1 shows concisely the number of sections, number of periods per day, and the teacher requirements in each of the fifteen schools organized on the platoon plan.



TABLE 1

School.....	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Number Sections.....	20	24	20	20	20	20	20	32	23	22	22	30	24	23	20
Number periods per day..	10	12	10	10	11	10	10	10	12	10	10	10	10	12	10

## TEACHER REQUIREMENT:

Home Room.....	10	12	10	10	10	10	10	17	14	11	12	15	12	14	10
Auditorium.....	1½	2	1½	1¾	1½	1½	1½	3	2	1½	1	2	2	2	1½
Gymnasium.....	1½	2	1½	1	1	1½	1½	3	2	2	2	2	2	2	1¾
Literature.....	2	2	1½	2	1½	1	2	3	2½	1	2	3	2½	2½	2
Science.....	2	2	2	1½	2	1	2	3	2½	2	2	3	2½	3	2
Music.....	1	1	1	1¼	1½	1	1	2	2	1½	1	1½	1½	1½	1
Art.....	1½	1½	1	1	1½	1	1	2	1	1	1	1½	1½	1½	1
Library.....	0	1	½	½	0	1	1	1	1	1	1	1	0	1	1
Shop.....	½	1	½	½	1	1	0	1	1¾	½	1	¾	¾	0	0
Domestic Art.....	½	1	1	½	1	1	1	1	1¾	½	1	1¾	¾	0	0
Relief.....					1				2						
Total Teachers.....	20½	25½	20½	20	22	20	21	36	32.2	22	24	31.1	25.1	27.1	20½

In a platoon type of organization, we have two schools to care for, which we will specify as an "A" and a "B" school. School A is in the home room for one half of each session where pupils are taught spelling, reading, writing, arithmetic, and in the upper grades, grammar and history are added. School B during this same time is in the special rooms where the content and special subjects (geography, literature, nature study, music, art, library, auditorium, and physical training) are taught. At the middle of each session (10 o'clock in the forenoon and 2:10 in the afternoon) the two schools exchange places. Thus half of the pupils are in the home rooms while the other half are in the special rooms. Each school has home-room work for 90 minutes in the forenoon and 70 minutes in the afternoon and a like amount of time is spent by each school in the special rooms. The 90 minutes are usually divided into three 30-minute periods and the 70 minutes into two 35-minute periods for the special activity instruction. The teachers do not move with their classes but are selected and classified for the special types of work—the home-room teachers teaching the traditional subjects of the curriculum; the special teachers, those subjects which we feel require specialists and for which they have had special training.

A typical day's program for the two schools may be outlined as follows:

## GRADE 5-A

## SCHOOL A

## SCHOOL B

## FORENOON

*Home Room*

8:30- 9:00 Oral Arithmetic  
 9:00- 9:15 Write and Study Spell-  
                   ing  
 9:15- 9:30 Language  
 9:30- 9:50 History or Hygiene  
 9:50-10:00 Recess

*Special Rooms*

10:00-10:30 Auditorium  
 10:30-11:00 Geography  
 11:00-11:30 Music

*Special Rooms*

8:30- 9:00 Auditorium  
 9:00- 9:30 Geography  
 9:30-10:00 Music

*Home Room*

10:00-10:10 Recess  
 10:10-10:40 Oral Arithmetic  
 10:40-10:55 Write and Study Spell-  
                   ing  
 10:55-11:10 Language  
 11:10-11:30 History or Hygiene

11:30 Noon Dismissal

## AFTERNOON

*Special Rooms*

1:00-1:35 Gymnasium  
 1:35-2:10 Literature

*Home Room*

2:10-2:20 Recess  
 2:20-2:40 Written Arithmetic  
 2:40-2:55 Writing  
 2:55-3:20 Reading

*Home Room*

1:00-1:20 Written Arithmetic  
 1:20-1:35 Writing  
 1:35-2:00 Reading  
 2:00-2:10 Recess

*Special Rooms*

2:10-2:45 Literature  
 2:45-3:20 Gymnasium

3:20 Dismissal

In the platoon school the principal is largely responsible for successful organization and the working out of the program. Program making involves first the division of the pupils into homogeneous groups or sections for class work. The next step involved is that of working out the time allotment of special activities. (Table 2.) Since the number of periods allotted to the special activities is five per day, or twenty-five per week the totals to the right must always be 25, where the sections are in attendance a full day. The totals at the bottom give an index to the number of teachers required for that particular special activity. With ten periods per day or fifty per week as a maximum number of required periods to be taught by a teacher, we can readily determine the number of teachers needed; *i. e.*, if an activity totals fifty, allowing no free periods, one teacher would be required, if it totals 100, two teachers would be required, etc. This holds true excepting for auditorium and gymnasium work where more than one section of pupils are cared for during the same period.

Table 3 is the program of the week's work for all sections. Care is taken to keep the same relative order of the classes every day during the week, meeting our ideas as set forth in the Period Allotment Table. Every section must have a place every period in the day and if all rooms are in use every period, it requires careful work and no guess work in the scheduling to successfully meet the requirements.

Table 4 is a program of the special activities for the entire week's work of the thirty sections and is of great value in locating a section at any time during the day.

Table 5—The time allotment by grades for the subjects taught in the home room in the seventh and eighth grades.

TABLE 2.—WEEK'S PERIOD ALLOTMENT FOR EACH SPECIAL ACTIVITY AT THE FRANK H. MASON SCHOOL, AKRON, OHIO, 1923-24

Grade	Sect.	Audit.	Gym. Play	Lit.	Sci.	Art	Music	Libr.	Man. Tr. Dom. Sc.	Total
1-A	1	0	5	5	5	2	2	1	0	20
1-A	2	0	5	5	5	2	2	1	0	20
2-B	3	5	5	5	5	2	2	1	0	25
2-B	4	5	5	5	5	2	2	1	0	25
2-A	5	5	5	5	5	2	2	1	0	25
2-A	6	5	5	5	5	2	2	1	0	25
3-B	7	5	5	5	5	2	2	1	0	25
3-B	8	5	5	5	5	2	2	1	0	25
3-A	9	5	5	5	5	2	2	1	0	25
3-A	10	5	5	5	5	2	2	1	0	25
4-B	11	5	5	5	5	2	2	1	0	25
4-B	12	5	5	5	5	2	2	1	0	25
4-A	13	5	5	5	5	2	2	1	0	25
4-A	14	5	5	5	5	2	2	1	0	25
5-B	15	5	5	5	5	2	2	1	0	25
5-B	16	5	5	5	5	2	2	1	0	25
5-A	17	5	5	5	5	2	2	1	0	25
5-A	18	5	5	5	5	2	2	1	0	25
6-B	19	2	3	4	4	3	2	2	5	25
6-B	20	2	3	4	4	3	2	2	5	25
6-A	21	2	3	4	4	3	2	2	5	25
6-A	22	2	3	4	4	3	2	2	5	25
7-B	23	2	3	4	4	3	2	2	5	25
7-B	24	2	3	4	4	3	2	2	5	25
7-A	25	2	3	4	4	3	2	2	5	25
7-A	26	2	3	4	4	3	2	2	5	25
8-B	27	2	3	4	4	3	2	2	5	25
8-B	28	2	3	4	4	3	2	2	5	25
8-A	29	2	3	4	4	3	2	2	5	25
8-A	30	2	3	4	4	3	2	2	5	25
Total		104	126	138	138	72	60	42	60	

TABLE 3—PROGRAM OF WEEK'S WORK AT THE FRANK H. MASON SCHOOL FOR SCHOOL YEAR, 1923-24, SECOND SEMESTER

	8:30-9	9-9:30	9:30-10	10-10:30	10:30-11	11-11:30	Noon 11:30- 1 00	1-1:35	1:35-2:10	2:10-2:45	2:45-3:20
Grade 1-A Sec. No. 1	Mon. Tues. Wed. Thurs. Fri.			Art Music Library Music Art	Science Science Science Science Science	Lit. Lit. Lit. Lit. Lit.		Excused Excused Excused Excused Excused	Gym. Gym. Gym. Gym. Gym.		
Grade 1-A Sec. No. 2	Mon. Tues. Wed. Thurs. Fri.	Science Science Science Science Science	Lit. Lit. Lit. Lit. Lit.						Gym. Gym. Gym. Gym. Gym.		Excused Excused Excused Excused
Grade 2-B Sec. No. 3	Mon. Tues. Wed. Thurs. Fri.			Science Science Science Science Science	Lit. Lit. Lit. Lit. Lit.	Aud. Aud. Aud. Aud. Aud.		Art Music Art. Music Library	Gym. Gym. Gym. Gym. Gym.		
Grade 2-B Sec. No. 4	Mon. Tues. Wed. Thurs. Fri.	Lit. Lit. Lit. Lit. Lit.	Aud. Aud. Aud. Aud. Aud.						Gym. Gym. Gym. Gym. Gym.		Art Music Art Music Library
Grade 2-A Sec. No. 5	Mon. Tues. Wed. Thurs. Fri.			Gym. Gym. Gym. Gym. Gym.	Library Music Art Music Art	Aud. Aud. Aud. Aud. Aud.		Lit. Lit. Lit. Lit. Lit.	Science Science Science Science Science		



TABLE 3 (Continued)

	8:30-9	9-9:30	9:30-10	10-10:30	10:30-11	11-11:30	Noon 11:30- 1:00	1-1:35	1:35-2:10	2:10-2:45	2:45-3:20
Grade 2-A Sec. No. 6	Mon. Tues. Wed. Thurs. Fri.	Library Music Art Music Art	Aud. Aud. Aud. Aud.							Science Science Science Science Science	Lit. Lit. Lit. Lit. Lit.
Grade 3-B Sec. No. 7	Mon. Tues. Wed. Thurs. Fri.		Gym. Gym. Gym. Gym.	Aud. Aud. Aud. Aud.	Art Music Art Music Library			Science Science Science Science Science	Lit. Lit. Lit. Lit. Lit.		
Grade 3-B Sec. No. 8	Mon. Tues. Wed. Thurs. Fri.	Aud. Aud. Aud. Aud.	Art Music Art. Music Library							Lit. Lit. Lit. Lit. Lit.	Science Science Science Science Science
Grade 3-A Sec. No. 9	Mon. Tues. Wed. Thurs. Fri.			Lit. Lit. Lit. Lit.	Gym. Gym. Gym. Gym.	Science Science Science Science Science		Aud. Aud. Aud. Aud. Aud.	Art Music Library Music Art		
Grade 3-A Sec. No. 10	Mon. Tues. Wed. Thurs. Fri.	Gym. Gym. Gym. Gym. Gym.	Science Science Science Science Science							Art Music Library Music Art	Aud. Aud. Aud. Aud. Aud.

TABLE 3 (Continued)

	8:30-9	9-9:30	9:30-10	10-10:30	10:30-11	11-11:30	Noon 11:30- 1:00	1-1:35	1:35-2:10	2:10-2:45	2:45-3:20
Grade 4-B Sec. No. 11	Mon. Tues. Wed. Thurs. Fri.			Gym. Gym. Gym. Gym.	Aud. Aud. Aud. Aud.	Lit. Lit. Lit. Lit.		Art. Library Music Music Art	Science Science Science Science		
Grade 4-B Sec. No. 12	Mon. Tues. Wed. Thurs. Fri.	Aud. Aud. Aud. Aud.	Lit. Lit. Lit. Lit.							Science Science Science Science	Art Library Music Music Art
Grade 4-A Sec. No. 13	Mon. Tues. Wed. Thurs. Fri.			Science Music Science Science Science	Music Gym. Gym. Gym. Gym.	Gym. Science Music Library Art		Lit. Lit. Lit. Lit.	Aud. Aud. Aud. Art. Aud.		
Grade 4-A Sec. No. 14	Mon. Tues. Wed. Thurs. Fri.	Music Gym. Gym. Gym. Gym.	Gym. Science Music Library Art							Aud. Aud. Aud. Art. Aud.	Lit. Lit. Lit. Lit. Lit.
Grade 5-B Sec. No. 15	Mon. Tues. Wed. Thurs. Fri.			Lit. Lit. Lit. Lit. Lit.	Art Gym. Library Gym. Gym.	Gym. Music Gym. Music Art		Science Science Science Science	Aud. Aud. Aud. Library Aud.		

TABLE 3 (Continued)

	8:30-9	9-9:30	9:30-10	10-10:30	10:30-11	11-11:30	Noon 11:30- 1:00	1-1:35	1:35-2:10	2:10-2:45	2:45-3:20
Grade 5-B Sec. No. 16	Lit. Lit. Lit. Lit. Lit.	Art Gym. Library Gym. Gym.	Gym. Music Gym. Music Art							Aud. Aud. Aud. Library Aud.	Science Science Science Science Science
Grade 5-A Sec. No. 17	Mon. Tues. Wed. Thurs. Fri.			Aud. Aud. Aud. Aud.	Science Science Science Science	Music Art Library Art Music		Gym. Gym. Gym. Gym.	Lit. Lit. Lit. Lit.		
Grade 5-A Sec. No. 18	Mon. Tues. Wed. Thurs. Fri.	Science Science Science Science Science	Music Art Library Art Music							Lit. Lit. Lit. Lit.	Gym. Gym. Gym. Gym.
Grade 6-B Sec. No. 19	Mon. Tues. Wed. Thurs. Fri.			Aud. Shop Aud. Library Music	Lit. Shop Lit. Lit. Lit.	Science Shop Science Science Science		Gym. Gym. Art Shop Gym.	Art Music Art Shop Library		
Grade 6-B Sec. No. 20	Mon. Tues. Wed. Thurs. Fri.	Lit. Shop Lit. Lit. Lit.	Science Shop Science Science Science							Art Music Art Shop Library	Gym. Gym. Art Shop Gym.

TABLE 3 (Continued)

Grade	Mon. Tues. Wed. Thurs. Fri.	8:30-9	9-9:30	9:30-10	10-10:30	10:30-11	11-11:30	Noon 11:30- 1:00	1-1:35	1:35-2:10	2:10-2:45	2:45-3:20
Grade 6-A Sec. No. 21	Mon. Tues. Wed. Thurs. Fri.				Art Library Aud. Aud.	Lit. Lit. Shop Lit.	Science Science Science Shop Science		Gym. Shop Gym. Gym. Art	Library Shop Music Music Art		
Grade 6-A Sec. No. 22	Mon. Tues. Wed. Thurs. Fri.	Art. Library Aud. Shop Aud.	Lit. Lit. Lit. Shop Lit.	Science Science Science Shop Science						Library Shop Music Music Art		Gym. Shop Gym. Gym. Art
Grade 7-B Sec. No. 23	Mon. Tues. Wed. Thurs. Fri.	Hyg. Hyg. Sp. & Pen. Sp. & Pen. Sp. & Pen.	Eng. Eng. Eng. Eng. Eng.	Study Study Study Study Study	Shop Aud. Music Aud. Art	Shop Science Science Science Science	Shop Gym. Art Gym. Gym.		Library Music Library Art Shop	Lit. Lit. Lit. Lit. Shop	Math. Math. Math. Math. Math.	Hist. Hist. Hist. Hist. Hist.
Grade 7-B Sec. No. 24	Mon. Tues. Wed. Thurs. Fri.	Shop Aud. Music Aud. Art	Shop Science Science Science Science	Shop Gym. Gym. Gym. Gym.	Study Study Study Study Study	Eng. Eng. Eng. Eng. Eng.	Hist. Hist. Hist. Hist. Hist.		Hyg. Hyg. Sp. & Pen. Sp. & Pen. Sp. & Pen.	Math. Math. Math. Math. Math.	Lit. Lit. Lit. Lit. Shop	Library Music Library Art Shop
Grade 7-A Sec. No. 25	Mon. Tues. Wed. Thurs. Fri.	Eng. Eng. Eng. Eng. Eng.	Hyg. Hyg. Sp. & Pen. Sp. & Pen. Sp. & Pen.	Study Study Study Study Study	Shop Aud. Art Art Aud.	Shop Library Art Library Music	Shop Lit. Lit. Lit. Lit.		Music Gym. Gym. Gym. Shop	Science Science Science Science Shop	Hist. Hist. Hist. Hist. Hist.	Math. Math. Math. Math. Math.



TABLE 3 (Continued)

*Explanation*—The day is divided into ten periods, six of 30 minutes each in the forenoon and four of 35 minutes each in the afternoon. One half of the forenoon is spent in the home room; this is represented on the above program by the blank rectangular spaces, in the first six grades. In the home room, the tool subjects as arithmetic, reading (fundamental), English including spelling and writing, hygiene and history. Many of these subjects are taught in part in the special rooms, as in the literature work the dramatization is handled in the reading-room, part in the library and part in the auditorium; language and number games are used in the play room; hygiene lessons in the way of health plays are used in the auditorium, personal health tests and measurements are taken care of in the gymnasium, etc.

*Shop*—This term is used to cover manual training, printing, and sheet metal for the boys, and cooking and sewing for the girls.

Seventh and eighth grades show complete programs as these grades are departmentalized. Spelling, penmanship, and hygiene are taught by one teacher in the seventh and eighth grades. "Sp," spelling; "Pen," penmanship; "Hyg," hygiene.

1-A grades—one section is excused at 2.45, and the other section does not report in the afternoon until 1.35.

TABLE 4—PROGRAM OF SPECIAL ACTIVITIES AT THE FRANK H. MASON SCHOOL  
FOR THE SCHOOL YEAR 1923-24, SECOND SEMESTER

For convenience the groups are known by section numbers. The section number indicates to the teachers the grade and the ability group to which the child belongs. For example, the first period on Monday morning, 8:30 to 9:00, sections 8 and 10, referring to 3-B and 3-A, are in the auditorium; sections 24 and 26 (7-B girls and 7-A girls) are in the gymnasium; sections 4 (2-B group) is in the primary literature room. This is made clear by referring to the key given below.

"A" indicates art, "M" music. The unusual number of free periods scheduled for the music room indicate the time allotted for glee clubs and orchestra. Wednesday afternoon and Friday forenoon the manual training and domestic science rooms are used by classes from another school. Our teachers are in charge. Wednesday program for auditorium shows several groups; this is due to the fact that motion pictures are shown on this day.

Key—

Sect.	Grade	Sect.	Grade	Sect.	Grade.
1	1-A	11	4-B	21	6-A
2	1-A	12	4-B	22	6-A
3	2-B	13	4-A	23	7-B (Girls)
4	2-B	14	4-A	24	7-B (Boys)
5	2-A	15	5-B	25	7-A (Boys)
6	2-A	16	5-B	26	7-A (Girls)
7	3-B	17	5-A	27	8-B (Girls)
8	3-B	18	5-A	28	8-B (Boys)
9	3-A	19	6-B	29	8-A (Boys)
10	3-A	20	6-B	30	8-A (Girls)

## MONDAY

Special Activity	Room	8:30-9	9-9:30	9:30-10	10-10:30	10:30-11	11-11:30	1-1:35	1:35-2:10	2:10-2:45	2:45-3:20
Period	Room	I	II	III	IV	V	VI	VII	VIII	IX	X
Auditorium.....	140	18-20	8-12	4-6	17-19	7-11	3-5	1-9	13-15	14-16	2-10
Gymnasium.....	113	12-6	10	28-14	11-5	9	27-13	21-17	1-3	2-4	22-18
Gymnasium.....	113	& 8	& 16	& 7	& 7		& 15	& 19			& 20
Literature, Primary.....	110	10	4	2	9	3	1	5	7	8	6
Literature, Intermediate.....	125	16	20	12	15	19	11	13	17	18	14
Literature, Advanced.....	117	28	22		27	21			23	24	
Science, Primary.....	109	4	2	10	3	1	9	7	5	6	8
Science, Intermediate.....	122	14	18	20	13	17	19		11	12	
Science, Advanced.....	118	30	30	22	29	29	21	15	25	26	16
Art.....	120	22	28		21	27		11	19	20	12
Art and Music.....	107	2A	16A	8A	1A	15A	7A	3A	9A	10A	4A
Music.....	123		14	18		13	17	25			26
Manual Training.....	14	24	24	24	25	25	25	29	29	28	23
Domestic Science.....	247 & 213	26	26	26	23	23	23	27	27	30	30
Library.....	102		6	30		5	29	23	21	22	24

## TUESDAY

Auditorium.....	140	18-26	8-12	4-6	17-25	7-11	3-5	1-9	13-15	14-16	2-10
Auditorium.....	140	& 24			& 23						
Gymnasium.....	113	12-6	10-14	24-30	11-5	9-13	23-29	25-17	1-3	2-4	26-18
Gymnasium.....	113	& 8	& 16		& 7	& 15		& 19			8-20
Literature, Primary.....	110	10	4	2	9	3	1	5	7	8	6
Literature, Intermediate.....	125	16		12	15		11	13	17	18	14
Literature, Advanced.....	117	28	22	26	27	21	25	29	23	24	30
Science, Primary.....	109	4	2	10	3	1	9	7	5	6	8
Science, Intermediate.....	122		18	14		17	13		11	12	
Science, Advanced.....	118		24	22		23	21	15	25	26	16
Art.....	120	30	30	18	29	29	17	27	27	28	23
Art and Music.....	107	2M	6M	8M	1M	5M	7M	3M	9M	10M	4M
Music.....	123	14	28	16	13	27	15	23	19	20	24
Manual Training.....	14	20	20	20	19	19	19	21	21	22	22
Domestic Science.....	247 & 213	20	20	20	19	19	19	21	21	22	22
Library.....	102	22	26	28	21	25	27	11	29	30	12

## WEDNESDAY

Auditorium.....	140	18-20	8-12	4-6	17-19	7-11	3-5	1-9	13-15	14-16	2-10
Auditorium.....	140	& 22			& 21				29-27	30-28	
Gymnasium.....	113	12-6	10-14	16	11-5	9-13	15	17-21	1-3	2-4	18-22
Gymnasium.....	113	& 8			& 7			& 25			& 26
Literature, Primary.....	110	10	(4)-4	2	9	3	1	5	7	8	6
Literature, Intermediate.....	125		20	12		19	11	13	17	18	14
Literature, Advanced.....	117	16	22	26	15	21	25	29	23	24	30
Science, Primary.....	109	4	2	10	3	1	9	7	5	6	8
Science, Intermediate.....	122	14	18	20	13	17	19	15	11	12	16
Science, Advanced.....	118		24	22		23	21	27	25	26	23
Art.....	120	26	26	24	25	25	23	19	19	20	20
Art and Music.....	107		6A	8A		5A	7A	3A			4A
Music.....	123	24		14	23		13	11	21	22	12
Manual Training.....	14	28	28	28	29	29	29	Spice r	8-B	and 8	-A
Domestic Science.....	247 & 213	30	30	30	27	27	27	Spice r	8-B	and 8	-A
Library.....	102	2	16	18	1	15	17	23	9	10	24

## THURSDAY

Auditorium.....	140	18-24	8-12	4-6	17-23	7-11	3-5	1-9	30-27	29-23	2-10
Gymnasium.....	113	12-6	10-14	24-29	11-5	9-13	23-30	17-21	1-3	2-4	18-22
Gymnasium.....	113	& 8	& 16	& 28	& 7	& 15	& 27	& 25			& 26
Literature, Primary.....	110	10	4	2	9	3	1	5	7	8	6
Literature, Intermediate.....	125	.....	20	12	.....	19	11	13	17	18	14
Literature, Advanced.....	117	16	28	26	15	27	25	30	23	24	29
Science, Primary.....	109	4	2	10	3	1	9	7	5	6	8
Science, Intermediate.....	122	14	18	20	13	17	19	15	11	12	16
Science, Advanced.....	118	29	24	.....	30	23	.....	27	25	26	28
Art.....	120	26	.....	18	25	.....	17	23	13	14	24
Art and Music.....	107	2M	6M	8M	1M	5M	7M	3M	9M	10M	4M
Music.....	123	28	29	16	27	30	15	11	21	22	12
Manual Training.....	14	22	22	22	21	21	21	19	19	20	20
Domestic Science.....	247 & 213	22	22	22	21	21	21	19	19	20	20
Library.....	102	20	26	14	19	25	13	.....	15	16	.....

## FRIDAY

Auditorium.....	140	18-22	8-12	4-6	17-21	7-11	3-5	1-9	13-15	14-16	2-10
Auditorium.....	140	& 26			& 25						
Gymnasium.....	113	12-6	10-14	24-29	11-5	9-13	23-30	17-19	1-3	2-4	18-20
Gymnasium.....	113	& 8	& 16	& 23	& 7	& 15	& 27				
Literature, Primary.....	110	10	4	2	9	3	1	5	7	8	6
Literature, Intermediate.....	125	16	20	12	15	19	11	13	17	18	14
Literature, Advanced.....	117	28	22	26	27	21	25	30	.....	.....	29
Science, Primary.....	109	4	2	10	3	1	9	7	5	6	8
Science, Intermediate.....	122	14	18	20	13	17	19	15	11	12	16
Science, Advanced.....	118	29	24	22	30	23	21	27	27	23	23
Art.....	120	24	29	14	23	30	13	21	21	22	22
Art and Music.....	107	2A	6A	16A	1A	5A	15A	11A	9A	10A	12A
Music.....	123	20	26	18	19	25	17	.....	30	29	.....
Manual Training.....	14	Spicer	7-B	and 7-A	.....	.....	.....	25	25	24	24
Domestic Science.....	247 & 213	Spicer	7-B	and 7-A	.....	.....	.....	23	23	26	26
Library.....	102	.....	28	8	.....	27	7	3	19	20	4

Domestic Science and Manual Training teachers also have charge of the instruction of the seventh- and eighth-grade pupils from the Spicer School.

The numbers above refer to the number of periods allotted to the activity per week. The length of periods in the forenoon is 30 minutes while the length in the afternoon is 35 minutes. This makes the maximum number of periods per week of special work for any section 25. (A.M. 3 half-hour periods x 5; P.M. 2 thirty-five min. periods x 5.)

TABLE 5—WEEKLY TIME ALLOTMENT IN MINUTES FOR HOME ROOM ACTIVITIES

[illegible]



NOTE—Reading for the intermediate and advanced grades is taken care of largely in the special rooms in connection with the special subject; literature, science, and library rooms. This leaves the reading in the intermediate grades to be largely in the nature of history, civics, and hygiene.

The above time allotments are not so definite as they appear, for several subjects are often taught at the same time.

TABLE 6—ROOM AND SUBJECT PROGRAM FOR SEVENTH AND EIGHTH GRADES

Departmental Work in These Grades	Room	8:30	9:00-10:00	10:00-11:00	11:00	1:00	1:35	2:00	2:45
		9:00			11:30	1:35	2:00	2:45	3:20
Mathematics.....	233	29	27	28	26	30	24	33	25
History.....	234	27	29	30	24	28	26	25	23
English.....	236	25	23	24	30	26	28	27	29
Sp., Hyg. and Writ..	205	23	25	26	28	24	30	29	27

NOTE—The above schedule is regular for all groups excepting 29 and 30, these two groups interchanging on Thursday and Friday. By this change it is possible to have the upper-grade groups reporting to the gymnasium on these two days, all girls or all boys.

The home room work as well as the special activities is departmentalized and Table 6 shows the departmental arrangement by teachers and Table 3 includes a complete departmental program for these grades.

In addition to the working out of the program the following details require careful consideration.

*Care of wraps*—This becomes a problem when the platoon plan of organization is introduced into a building not erected especially for this type of school. Most of the schoolrooms in our building have cloak rooms, and if not, hall racks are easily provided near these rooms. There is a difference in the handling of the wraps, it being left to the local principal. Usually the pupils leave their wraps, when entering the building, in the room in which they will be at dismissal time and then go to the rooms where their first recitation is held. By this plan no shift takes place at the beginning nor at the close of the session. The new buildings have lockers in halls, equal in number to the pupil capacity of the building.

*Recess*—A short basement recess both morning and afternoon is provided for in the schedule and is usually arranged so as to be supervised by the home-room teacher. This varies somewhat in different buildings, depending upon the toilet facilities. The gymnasium period replaces the usual recess.

*Attendance record*—All teachers share the responsibility of the record work. A teacher, known as the attendance teacher,

is assigned to each section. This teacher as far as possible is the teacher having the section the first period in the morning. The home-room teacher is responsible for the attendance and other reports for only one of her sections (the one reporting to her the first period in the morning) ; the other section is assigned to a special teacher, who has all the record work for this section.

The teacher is responsible only for the report to the office of the attendance record at the beginning of each session. The daily attendance record is posted in the register (a card system) by the clerk. Abstracts and reports to the Attendance Department are made from the office records. The Teacher's Daily Attendance Report (Form 22G1) contains the names of pupils absent, tardy, or those causing a variation in the roll (with reason indicated by use of the code) and once written need not be rewritten during the school month. If the section is not in the room of their attendance teacher at the beginning of the session, the leader of the section reports to the attendance teacher by means of the Pupil's Daily Attendance Report (Form 22G3) the attendance and tardiness of the section. This record is carried by the leader from class to class and checked by each teacher to whom the section reports, each teacher indicating her verification by placing her room number in the proper column.

*Pupils' report cards*—The attendance teacher is responsible for the placing of the attendance record at the end of the grade period, upon the pupils' report cards. The report cards are carried by the leader or by the pupils themselves to the teachers as they report to classes. The teacher calls the pupil to her desk, places grade for her subject on card, returns card to pupil, and thus with the entire class. This method affords an opportunity to discuss with the pupil the grade he receives. At the end of the day the grade card is practically filled out and much of the teacher's time has been saved by eliminating the re-writing of grades.

*Equipment and supplies*—Cupboards are provided for the storing of all books, apparatus, and supplies required in the special rooms. This makes for efficiency in these departments as all supplies pertaining to the work done in these rooms are taken there direct upon receipt in the building and when needed elsewhere must be requisitioned from the teacher in charge. This plan also makes it possible for several sections to use the same equipment and supplies. Money buys a greater variety of equipment rather than a duplication of supplies for several rooms.

*Seating of special rooms*—In developing the primary platoon much of the seating difficulty has been eliminated. The ordinary school desk is being replaced by tables and chairs. If different sized pupils are required to recite in the same room, it is advisable to use two or three sizes of seats.

The day of the simple curriculum has passed and school authorities must rearrange organization, school buildings, and courses of study in order that they may meet the ideals of the folks whom they wish to serve. If we are to teach our boys and girls the three R's, adding, as we feel we must, the new subjects, there has to be many additions to our course of study.

As a nation increases and develops, its ideals of education must of necessity undergo many changes. In our country, there has been a marked development in the social and industrial life and in order to have our boys and girls ready to meet this life, there has gone forth a call for a fuller school experience. Quite naturally, always some objection is raised against any changes in educational systems by the more conservative, and realizing that the three R's must always be the basis of an elementary education and at the same time meet the present demand for an enriched education, there must needs be a decided change in operation. We must look after the physical welfare of the child—give him sufficient training that will develop an appreciation of art, music, and literature—and most of all, teach him how to use his hands. There were ample opportunities for this training to be done in the home a few years ago, but with life centered in the city, with its apartments and small acreage per family, the child is without a chance to do work with his hands and the school buildings can no longer remain rooms with rows of desks and a blackboard.

With the vast expense involved in taking care of this enriched curriculum, in the way of additional building equipment and special rooms, the efficient use of the building becomes a vital question. If we were to allow a large gymnasium or auditorium to stand idle except for a few hours, perhaps after the close of school, we would be guilty of causing a tremendous waste, and should they be in use only by vacating some other room, the waste would be equally serious, though possibly not so apparent. The school program, therefore, must be so arranged to take care of the course of study using as nearly as possible all the rooms all the time. Akron has found that the platoon system of school organization best meets these needs and hence its use in fifteen of the elementary schools.



The following paragraphs are taken from a report which the writer made to the superintendent relative to the special activities in his own school. These will show concisely in what manner the work of the special rooms has greatly enriched the curriculum.

*Auditorium*—The work in the auditorium is an integrating and correlating unit, affording an opportunity for the application of the lessons which have been learned in the home rooms and in the special rooms. It is here that we are centering our efforts to train the child for social life and citizenship.

The following bulletin issued by the superintendent describes fully the nature of the work in the auditorium:

1. Dramatization of stories learned in reading and literature. This work is particularly adapted to the lower grades but is useful in all grades. It should be so well prepared that pupils can carry the story through without much help from the teacher.

2. Literary societies where pupils may receive training in parliamentary law and where general literary programs may be put on for entertainment and appreciation. In these societies the teacher should see that all the children have an opportunity to take part. Debating may be used in the seventh and eighth grades but is of doubtful value below these grades.

3. Visual Education. Motion pictures, stereopticon views. At least one day per week should be given to this kind of work and it should be correlated with geography, history, science, travel, art, current events, and all citizenship activities. As a part of visual education poster exhibits and art exhibits of various kinds may be used.

4. Music Appreciation. This work may be done with the Victrola and by having the children or adults put on musical performances of various kinds. Children should sing in the auditorium for relaxation and entertainment. They should sing the well-known patriotic, community, and school songs. There should be no music teaching but an opportunity offered to enjoy the songs which have already been learned. In the preparation for the music memory contest a large part of the work may be done in the auditorium period.

5. Vocational Guidance Activities. In the upper grades encourage the boys and girls to talk to the class about their hobbies and possibly put on exhibitions. Many of the boys are equipped to give talks on radio and other electrical phenomena. Some may be prepared to talk on pets—rabbits, pigeons, or poultry. Some boys are especially interested in some phases



of nature study and can prepare a lecture on their subject. The teacher may give a series of talks on the various vocations and this may be supplemented by talks by business and professional men.

6. Citizenship Activities. Safety first, fire prevention, thrift education, courtesy, character education. Outlines may be developed by class discussion and supplemented by talks and original plays.

7. Matters of Community Interest. This is applied citizenship instruction. Boost all worthy campaigns in the city. Discuss matters which are of interest to your school and the immediate neighborhood. Discussion of the general discipline and spirit of the school.

8. Special Days. All holidays, birthdays of famous men, local celebrations give opportunity for special programs in the auditorium.

9. Hygiene. This should not be taught in the auditorium but the application should be made in the hygiene lesson. Original plays, discussion of cleanliness, toothbrush, drinking milk, and other phases of hygiene should be considered.

10. Patriotic Programs. The flag salute, singing patriotic songs, recitations of great American poems, prose selection. Interpretation of current events with patriotic motive in mind.

11. School Spirit. Build up the idea of intelligent obedience and where possible put in some measure of self-government. Discussion of relation of pupil and teacher. Conditions within the school. Things which may be done to make the school better. Singing school songs. Backing of school in athletic contests.

12. All general community entertainments for special occasions or for the Home and School League should be worked out in auditorium with the coöperation of other teachers.

*Gymnasium*—The physical education is handled in the gymnasium, which is sufficiently large to care for two or three groups every period. The work is composed of formal exercises, marching and playing of games, which are played out-of-doors whenever weather permits. Two teachers are in charge.

*Literature*—In this room our purpose is to emphasize the appreciation side of literature. The prominent features of this activity are development of language power, informal dramatization of stories, story-telling, appreciation of stories and poems, and the teaching of poems (memory work). The aim is to instil in the child a desire not only to enjoy good literature but

to know the field of literature in a general way, to read good books, and to choose the best books for reading so that he may learn to enjoy his leisure time.

*Science*—Primary grades—Nature Study—An effort is made to have the children learn to love the beautiful; to know bees, flowers, birds, insects, and animals; make them keen observers; and lay the foundation for geography. The work is made seasonable, the children studying objects brought in by them. Children are taught habits and care of birds and animals. The room contains cages, aquarium, and various exhibits, and in fact, many other things that will help the teacher, who is a student and lover of nature, to conduct the work with young children. The work is correlated with literature work by stories and picture study; with the drawing room, by posters and sand table, illustrating farm life, Indian life, and the like; with the home room reading lessons, by the aids in interpretation.

Intermediate and advanced grades—The work in these grades follows the course in geography and under the special teacher we have a favorable solution of the problem for teaching this subject. The rooms are especially equipped. The children collect pictures and articles from newspapers, magazines, etc., in order that they may become better acquainted with the conditions in the country about which they are studying. Daily weather maps are made use of; newspaper reports concerning earthquakes, storms, and floods are studied. The stock exchange reports are discussed in the commercial geography classes to note how they affect home industries. In the eighth grade the science of every-day life is studied; materials are tested for shrinkage, durability, conductivity; trips are made to newspaper offices, telephone exchanges, telegraph stations, and to numerous local industries.

*Art*—The work is made to correlate with the other departments as much as possible; such as, posters illustrating poems of the literature room, the reading of the home room, cut-outs and drawings for the sand table; making booklet covers; decoration of the toys made in the manual training department, etc.

In the advanced grades, classes being divided, the girls have an opportunity of doing a great deal of handicraft, such as decorating tin articles, use of sanitas or other oil cloths in many attractive forms. Unattractive baskets by use of paint or felt are made into not only useful but decorative articles, thus bringing the attractive rather than the unattractive into the home. Bookbinding and picture appreciation are taken up in the ad-

vanced grades more extensively than in the intermediate grades. Pictures most familiar are chosen, the artist studied and the characteristics of his work, and our most important galleries. The choice of pictures for home and public buildings is discussed; work in interior decorating is studied, types of homes, choice of furniture, and the harmony between a room and its furnishings. All work in the art department follows the season as closely as possible.

*Music*—The work in music as far as the technical music and the chorus work is given in the music room. There is a close coöperation between the work of the music department and the auditorium. Orchestra and glee clubs are handled by the regular teacher, aided by the special teacher. The violin classes and lessons in other instruments are conducted by the special teachers, who come to the building from one to two days each week. Emphasis is placed on the appreciation side of music, studying the composer, nationality, and composition.

*Prevocation*—This work is woodworking, printing, electricity, or sheet metal for the boys and instruction in cooking and sewing for the girls of the sixth, seventh, and eighth grades.

The aim is to give the boys a varied experience in shop work by having the four types of shop (one to each building) located in adjacent buildings so that the classes may interchange.

*Library*—This room provides time for pleasurable reading, reference work, and directed study. Home reading is encouraged and directed. Reports are made of books in the upper grades. The work in the library correlates very closely with the other departments. Emphasis is placed upon dictionary drill and how to make use of the library.

The platoon school with its special activities affords an excellent opportunity for the reorganization of the curriculum on the project basis. It of necessity becomes a building project and may be carried out to a fuller extent if properly correlated. It is no longer a one-room project. It brings about the coöperation of several teachers, and we can hardly deny that the interest aroused and results obtained are much greater with the various teachers doing the part for which they are best fitted.

In closing may I emphasize why Akron is favorable to the platoon plan of organization. It offers real educational advantages in that its activities more nearly parallel life activities, thus preparing the child for the participation in the work and play of the world. It trains him to spend his working time as

well as his leisure time profitably; it develops self-reliance, self-control, self-direction, coöperation, initiative; it affords a wonderful opportunity for student participation. We are teaching the children to live. They live into that citizenship which the future makes their own.

It not only takes care of the social ideals but allows a wider use of these ideals. The aspects of social life and forms of group activities are presented along with the academic subjects, weaving them together to form a broad foundation for civic life. The child of today faces a new world and the elementary curriculum of the past will no longer suffice. A richer program, better suited to modern conditions, is necessary to prepare the child to face the problems of tomorrow.

Children like school better with its variety of work. They are interested. They are being helped to find themselves. A keener school spirit is developed.

The teacher is specialized and therefore more effective instruction can be given. There is also an advantage in that the instruction is given in rooms specialized in equipment and "atmosphere."

Let us hope that our training, however accomplished, may enable the men and women of tomorrow, our boys and girls of today, to so solve all social and political problems as to reflect only honor and respect to themselves and thus may our visions, through them, be realized.

## THE PLATOON SCHOOLS IN PITTSBURGH

ADDA MAY MANN

*Principal, Greenfield School, Pittsburgh, Pennsylvania*

IT IS not the purpose of the writer to attempt to justify the platoon type of school organization, as it is no longer an experiment in the city of Pittsburgh but has become the established policy of the Board of Public Education.

The first platoon school in this city, the McKelvy, was opened March 5, 1916. This was a new building, but it had not been constructed for use as a platoon school. However, in order to try out a new and enriched program, it was decided to organize this school for platoon work, with seven hundred pupils, the normal capacity of the building. In September, because of the overcrowded conditions in the district, it was found necessary to take care of five hundred additional pupils. By the reorganization of the program on the platoon plan it became pos-



sible to accommodate, on full time, twelve hundred pupils in a building which had been built to accommodate seven hundred.

In September, of this same year, two more buildings were organized on the platoon plan, one of these a comparatively new building and the other a very old building. Two years passed before a fourth building, the Manchester, containing forty units, or classes, the largest elementary school in the city, became a platoon school. Two years later three other schools made this change. At the present time there are twenty-five schools in the city of Pittsburgh operating on this plan. During the present year a number of schools have been re-organized, others are anticipating making the change, so that it is not unlikely that we shall have thirty-two organizations of this type by the close of the present term when it is estimated, practically fifty percent of the total enrolment in the elementary schools of the city will be working in platoon schools.

I have endeavored to show that in the establishment of this type of school Pittsburgh has shown deliberation and foresight, which have resulted in public confidence and approval, to the extent that there has been no public opposition. We cannot ignore the fact that the community mind acts slowly in matters of educational progress, as the traditional is deeply rooted.

During the period of the World War, building programs everywhere were suspended, but in October, 1921, ground was broken for the new Greenfield Elementary School, which was to be the first building designed and equipped as a platoon school. This building was planned to take care of twenty-four units, or classes, and contains twelve regular classrooms, with an equal number of opportunities for special activities, thus making it possible to care for one half of the school enrolment in special departments for fifty per cent of the time, while the other groups are in the regular classrooms. A representative platoon program should provide for this fifty-fifty type of organization.

The so-called regular subjects include history, geography, arithmetic, English (reading, spelling, and language), and writing. These subjects may be taught by one teacher or may be departmentalized.

One of the outstanding characteristics of a platoon school is its flexibility and adaptability to the needs of the local community. Therefore, no two platoon schools need be identical in organization or program of work. Indeed, an attempt to make them so will destroy the richest contribution made by this newer

conception of the function of the school. It is in the realm of the special activities that the program offers the greatest opportunities for diversity and enrichment.

As the Greenfield School is a typical platoon building, the program is typical of the Pittsburgh conception of what should be incorporated in a platoon program. In this school the regular subjects are not departmentalized, but are taught by one teacher. Her time is divided equally, in the morning, and in the afternoon, between two groups, or classes of pupils.

The special activities include art, music, elementary science and nature study, oral expression and dramatics, physical training, community activities, application, including the use of the stereopticon and the motion-picture machine, library work, manual training, household economy, and swimming. It will be readily seen that with so rich a content care must be exercised in working out a program that will have proper balance. The weekly unit plan is the most satisfactory. This provides for the assignment of special subjects once, twice, or three times a week, according to the nature of the work and the time available.

The far-reaching educational advantages of such a rich program cannot be questioned. The very nature of the organization frees the spirit of the child and stimulates him to greater interest and alertness. Here he lives his child-life in a wholesome, happy atmosphere, where he finds abundant opportunity for self-expression and self-direction, opportunity to explore, investigate, and construct, opportunities for new and valuable social contacts. Working together in groups promotes a spirit of give and take, leads the child to yield his own personal interest to the greater interest of the group. The unfortunate "misfits" found in all our schools have a far greater opportunity to find themselves in this type of school. We find fewer "drop-outs" and much less truancy.

The abundant opportunities offered in physical education make a contribution that cannot be measured alone in terms of immediate results, but will carry over into a healthier, happier, and more worthy manhood and womanhood.

True it is that this type of school is a far cry from the the school of a quarter of a century ago, but who would sound a retreat? Let us seek the answer in the awakened and illuminated soul of the child, and we shall pledge ourselves anew to the task that is set before us, realizing as never before that we have but touched the rim of possibilities.

## PLATOON SCHOOLS IN BIRMINGHAM

H. B. NORTON

*Principal, Robinson School, Birmingham, Alabama*

THE PLATOON SCHOOL in Birmingham dates from the fall of 1919 when the plan was inaugurated in South Highland School, then the largest elementary school in the city. The adoption of the plan was brought about partly through faith in its superior merits and partly as an expedient to care for the rapidly increasing enrolment. Since that time the school has held steadfastly to the plan, making such modifications in the details of organization as further study and experience have shown to be wise. Today the principal of this school and his teachers are among the most enthusiastic advocates of this type of organization. The opening of the second semester of 1922-23 witnessed the inauguration of this plan in the Martin School, a school somewhat smaller than South Highland. The following September twelve other schools joined the ranks and in March, 1924, the latest building to be made ready for occupancy was opened with this plan in operation. Out of a total of thirty-three schools for white children fifteen are now platoon schools. Many of those which are holding to the traditional organization are either very small, or in buildings in which it seems wholly impracticable to attempt anything different. In addition to these, one of the large schools for negro children has been operating under the platoon plan for almost a year.

A brief statement of the events leading up to this large increase in the number of platoon schools should help the reader to understand and evaluate some of the things which will be said later relative to the details of their respective organizations. Dr. C. B. Glenn, superintendent of public schools, holds to the policy of encouraging as much initiative and individuality on the part of his principals as is consistent with the maintenance of that minimum of uniformity necessary to hold the school system as a unit. Pursuant to this policy he let it be known early in 1923 that he would be glad to confer with those principals who were interested in adopting the platoon plan for their respective schools. Numerous conferences were held, visits made to schools already operating under the plan, all available literature studied, and finally, a general conference of those interested was called and the subject freely discussed.

Though all the schools conform to the same general plan, considerable variety in details has naturally arisen. This fact has,



indeed, rendered the tasks of those working in these schools vastly more interesting. Each principal has had his own peculiar problems. In many respects they have been radically different from those with which any other principal has had to grapple. In the first place, each one has had the task of working out a plan by which his building could be made to serve in as satisfactory a manner as possible the purposes of the new type of school. Only two of the buildings were new, these having been in use one year each, but they were not designed for this type of work. About half the others had been in use from twelve to fifteen years, and the remainder had seen service as public schools for periods ranging from twenty to thirty-eight years. Moreover, the failure of the electorate to approve a large bond issue which had been submitted a little more than a year previously had left the Board of Education without funds sufficient to adequately remodel any of these buildings. Having neither auditorium nor gymnasium, each principal found it necessary to improvise both. In some buildings two classrooms were thrown together, in some an oversize room was crowded full of benches or chairs and made to serve as an auditorium, while others have made the lunch room serve this function in addition to its usual one. The procedure for acquiring quarters for a gymnasium has been similar and in most cases has taxed the ingenuity of principal, teachers, and mechanical department. At a few of the schools where no part of the existing building or temporary annexes could be made to serve the purpose a portion of the playground has been converted into an outdoor gymnasium by the construction of a roof or shed over it.

In a similar manner each principal has had a different problem in the matter of adjusting his teaching corps to the new plan of work. In many schools there had been few vacancies at the close of the previous session. It was not desired that teachers be transferred from these schools, if this could possibly be avoided, therefore the principals were instructed to find as many as possible, not only of their home-room teachers but also their teachers of special subjects, among those already in service in their respective schools. In many respects this was a decided advantage. Having had opportunity to observe his teachers at work for one or more years and to become acquainted with their special qualifications, the principal was generally able to make a highly satisfactory assignment of work. In some schools, however, the adjustment has been more difficult to accomplish. In these there has not been found a sufficient number of teachers



possessing either the peculiar qualifications necessary or the desire to teach the special subjects. Sometimes it has been necessary to transfer a teacher who was entirely satisfactory in the traditional school, or who would have made an excellent home-room teacher in the platoon school in order that a place might be made for a teacher required for some special subject.

In the Birmingham schools, both in the traditional and platoon type, the children go to their respective rooms at 8.20 A.M. With ten minutes allowed for roll call and other preliminaries actual work begins at 8.30 A.M. Traditional schools dismiss at 2.30 P.M., while platoon schools continue until 3 P.M. the difference in time being compensated for by a rest period for each teacher and an extra period for physical education for each class of pupils. Exclusive of the lunch period this gives the platoon schools a six-hour day which is divided equally between what is termed home-room work and the several special activities. For convenience in schedule making the platoon part of the school, consisting necessarily of an even number of classes, has a number assigned to each of the several sections. These numbers run consecutively from one to the number representing the total number of classes or divisions participating in the platoon schedule. While sections designated by the odd numbers are engaged in home room work those evenly numbered are in the special activities, and vice versa. In a majority of the schools there are two home-room periods of one and one half hours each for each class, or section, though one school has a single home-room period of three hours for each class and another divides the home-room time into periods of two hours and one hour, respectively. Periods for the several special activities are usually thirty minutes, except those for manual arts, which are double this time.

From the foregoing it is evident that home-room teachers are responsible for certain work in only two classes, that they have these classes for practically half the school day and that they have the pupils for fairly long periods at a time, ranging from a minimum of one hour to a maximum of three hours each. Special teachers may have as many separate and distinct classes during the day as there are periods when they are on duty. Under the schedule here the number of periods of active duty each day is usually eleven. The home-room subjects are language, arithmetic, reading, spelling, history, and sometimes writing. The specials are literature, science, music, drawing, auditorium, physical education, and manual arts. It seems better to class

writing also as a special subject but to have it taught by having the special teacher visit the home room. This is the plan which is followed in a number of our schools.

The platoon schools in this city vary in size from a few small ones with a total enrolment of less than 500 to the largest with more than 1200 in attendance. The number of sections engaging in the platoon work varies all the way from 10 in the smallest school to 24 in some of the larger ones. In general the tendency seems to be to start the platoon work in the third grade, but some of the smaller schools have had to carry it down into the second, or even into the first grade, in order to provide a sufficient number of sections to make it possible to work out a satisfactory schedule. From this fact of variation in size there necessarily follows a variation in the subject combinations which the teachers may have. In the larger schools teachers of special subjects usually are able to give all their time to a single subject, but in the smaller ones it is necessary for some to do work in two or more subjects, the combinations of subjects being determined by the peculiar qualifications of the teachers available and the needs to be met.

Birmingham cannot boast a single completed school building which has resulted from the platoon type of organization. In recent years the demands in this rapidly growing city have increased so much more rapidly than the funds available for construction purposes that practically all the building work has been in the nature of additions to existing plants, or in initial units in new districts where the needs have seemed to be most urgent. There is abundant evidence, however, that the ideals and objectives involved in the platoon-school movement have already greatly influenced the building plans of the Birmingham Board of Education and that they are destined to have an even more profound influence upon the building operations of the immediate future. The Board of Education has quite recently published a comprehensive study of the school building situation under the title of "The Birmingham School Survey." The opening paragraph of this publication sounds the keynote of the whole matter in the following significant language: "The evolution of public education has called for a new type of school plant. The mediocre, uninviting classroom structure of a generation ago was sufficient for the limited demands on the public school of yesterday before the centralization of industry, the development of big business, and the growth of urban centers. But changed industrial, economic, social, and domestic conditions

have occasioned a change in educational objectives and these, in turn, have called for a new type of public school." According to this survey "The outstanding present day educational objective is health. . . . Individual and community health activities cannot be developed in classrooms. Gymnasiums and playgrounds are required for both elementary and secondary schools, and auditoriums are necessary for a comprehensive presentation of health subjects. . . . Citizenship, worthy use of leisure, and manual skill constitute additional objectives in modern education, therefore music and drawing rooms, libraries, workshops and laboratories in addition to auditoriums, gymnasiums, and classrooms are required in order to bring present-day objectives to realization." In discussing the initial units of the four buildings which have been undertaken with these newer objectives in mind the Board of Education asserts that "The buildings, when completed to their ultimate capacity, will represent maximum safety, proper lighting and ventilation, and will include all facilities necessary for the Birmingham educational program. A standard gymnasium, a medium-sized auditorium, and a school library are included in addition to the regular classrooms, home economics laboratories, and shops. This kind of school with the Birmingham plan will have no higher per capita cost than if it included nothing but classrooms."

The effect of the platoon type of organization upon the course of study in Birmingham is not yet fully apparent. During the current year both traditional and platoon schools are using a course of study which came from the press late last summer. This course represents the results of the labors of various committees of principals and teachers covering a period of several years. Theirs had been the task of revising and modifying the course of study which had been in use for a number of years but without particular reference to the new type of schools. With the submission of this course last fall principals and teachers were specifically advised that this was not to be considered a finished product but merely something which was to be put through the acid test of experience. We feel that the course of study should be something that is alive and growing. Having changed from a seven to an eight-year elementary course, this first year has been one of adjustment, a year in which all schools have been trying to test out the new course and determine its adaptability to the children of the different grades. Platoon schools have been doing more than this. Particularly in their science, literature, and auditorium work they have been endeavoring to con-



form to the outline of the printed course, but many of the teachers have recognized that they were doing a kind of pioneer work, that they were having an opportunity to reach out into richer fields. At the general meetings which are held monthly these forward-looking ones have been giving others the benefit of their experiences. Through committees for the various subjects appointed early in the year all these contributions are being brought together, classified, and correlated. Teachers from platoon schools on these committees are voicing a sentiment which may lead to a separate publication for platoon schools in some of the subjects. A part of the course of study which seems most in demand may be reprinted during the coming summer. The entire course, whether reprinted soon or not, will be subject in the future to the same kind of treatment it has had during the current year. The progressive teachers of the system through the active committees will be raising their voices wherever there seems to be an opportunity to vitalize the curriculum to a greater degree. In this work the platoon schools are certain to play a very active part and they may develop a different curriculum for their own special use.

This sudden increase in the number of platoon schools in Birmingham was due to some extent to considerations of expediency. A few principals were so perplexed over the problems presented by a prospective enrolment of from thirty to one hundred per cent above the normal capacity of their buildings that they were ready to seize upon almost any expedient which would offer proper relief. But these considerations alone would have been insufficient to induce them to completely revolutionize their several schools. The principals entered upon the operation of platoon schools imbued with a firm faith in their superiority over the type of schools which had previously been in vogue. During the year this faith has grown stronger and many teachers who were skeptical at the beginning have had their eyes opened to the advantages afforded the pupils.

According to the Birmingham conception of the platoon plan the outstanding advantage is the opportunity which it offers for enrichment of the curriculum. In the organization of literature as a distinct subject separate from both the reading and the language with which it has been associated in the past, and often only incidentally taught, we believe that an addition to the cultural content of the curriculum of very great value has been made. A teacher who is deeply interested in this subject, who



has had special training for the teaching of it and who has the opportunity to concentrate her entire attention on it can, we hold, much more thoroughly vitalize the work and bring the pupils through the elementary course with a greatly broadened outlook. Such pupils cannot be better prepared for understanding the work which will come in high-school courses in English or for appreciating and enjoying libraries, magazines, lectures, and many other things which are component parts of life in our best communities. The many bits of poetry memorized and the gems of thought acquired from the best of prose during these impressionable years of childhood not only furnish delightful experiences for the present, but will constitute a fruitful source of comfort and solace throughout the years of adult life.

The auditorium period furnishes an opportunity which has been sadly lacking in a large majority of the elementary schools of the country. In these it has been the custom for children to go early in the morning to their respective grade rooms where they remained throughout the day, knowing nothing of the work of other rooms, knowing nothing of other teachers, and having contact with other pupils only during the brief recess periods and outside of school. With a daily auditorium period one grade has the privilege of assembly with one or more other grades and the opportunity of seeing some of the things which the children of other grades have learned to do. Here they may sing together the songs they like, talk of the things which concern the welfare of the whole school rather than those only which pertain to a single grade, rejoice together in the achievements of the school on athletic field and elsewhere. Here, too, the wide-awake teachers in charge find the best opportunity of arousing interest in such civic topics as children can comprehend and of applying these to the needs of the local community. Before such groups outside speakers can be brought from time to time with messages of inspiration which may give to some children higher aspirations and greater courage to guide them through life.

Particularly under the conditions of modern city life very few schools can be found with ample playground space or facilities. When the entire school is released, as is often done at the lunch period, on this limited area only a very few of the children can possibly participate in any kind of organized play. The principal is so often kept busy adjusting complaints between rival groups who have come in conflict over either material or play-

ground space, while the great mass of the children are simply chasing hither and thither, from one point of temporary interest to another and doing nothing that is definite or organized and failing to get that most important training which can be had in group contests and in teams of various kinds. The platoon schools provide an extra period when a teacher specifically designated for this particular task, a teacher who is interested in play and all its possibilities, goes to the playground with a limited group of children. Under such conditions the games can be so planned and organized that all who desire can have an opportunity to join with their playmates in some kind of pleasurable activity. Moreover, the teacher through the influence of her personality can gradually bring into this organized work those few individuals so often found who seem disinclined to play.

The maps, globes, charts, and other material required for the proper teaching of geography and other elementary school sciences constitute a large item in school expenditures, if supplied in sufficient quantity to meet the requirements of each grade classroom in the traditional school. The consequence usually is that school authorities purchase a few of the things which seem to be most imperative and then make an effort to pass these from room to room, an arrangement which has never proved satisfactory. In the platoon school as many rooms as may be necessary are set aside to be used exclusively for the work in science. In these rooms are concentrated all the helps available in the entire school. With this material constantly at hand the teacher is prepared to use with any particular class any portion of it which may be needed. In addition to the material which may be purchased for this work the enterprising teacher can accumulate at very little or no expense a great deal of material which may be made fully as helpful as any of that which is usually purchased. Many of the children will be interested in looking for all kinds of specimens and bringing them for a school collection. Sometimes citizens are ready to loan private collections to the schools and many commercial organizations are glad to send to schools samples of their products or collections of materials which they use in their manufacture. In this manner the most vital facts of geography and other sciences can be taught more effectively than by the use of maps and the printed page.

The same principles apply in considerable measure to the subjects of drawing and music. Teachers who are thoroughly qualified in these subjects and who enjoy teaching them can be se-

cured. The drawing room can be fitted up in a manner appropriate to this work and then the drawings of the different grades can be displayed where all the others may see them and profit thereby. The music room can be equipped with piano, victrola, and other instruments helpful either in the teaching of the theory or the appreciation of music.

In the regular subjects of reading, spelling, language, and arithmetic the principals of platoon schools here do not feel that there has been any material loss even during this first year of organization and adjustment. The home-room teachers who teach these subjects in two different classes daily, by reason of being relieved of the necessity of keeping up with outlines in the various special subjects and of holding conferences with the supervisors thereof, are able to give more definite thought to the methods of teaching the few subjects left to them. This we hold gives fully as good, if not a better, opportunity to handle these subjects properly. A comparison of platoon and non-platoon schools for the first semester of this year shows that the percentage of permanent withdrawals was slightly lower and that promotions were a little higher in percentage in the platoon than in the other type of schools. This evidence, though not conclusive, helps to keep up the courage of those whose faith is in this work.

And finally we have a rather firmly established conviction that a platoon school properly conducted will do more than a non-platoon school to develop such desirable traits of character as self-control, independence, and self-reliance. Through the varied activities of this type of school the latent possibilities of children can be more effectively developed. The children learn the necessity for caring for their own property, they learn to rely upon their own resources rather than upon the teacher, and they acquire facility in adjusting themselves to several different teachers. Through auditorium, literature, and other special subjects they have more opportunities for self-expression and independent thinking. According to the ideals of our American democracy these are objectives worthy of attainment. If any change in school organization will increase the possibility of bringing out the latent talents of the children taught, of helping them to become men and women who are independent and self-reliant, then that change seems eminently worth while.

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<sup>1</sup> Compiled by Don C. Rogers, special secretary of the Chicago Principals' Club.



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# LIST OF MEMBERS

## THE DEPARTMENT OF ELEMENTARY SCHOOL PRINCIPALS

FOR THE YEAR 1923-1924, CORRECTED TO MAY 20, 1924

Unless otherwise indicated those listed are elementary school principals

- Aarvig, Bertha O., Apartment 3, K. C. Bldg., Fort Dodge, Iowa.
- Abbott, Carlotta G., Emerson School, Fourteenth and Ogden Sts., Denver, Colo.
- Abel, B. L., School 45, Auburn Ave., Buffalo, N. Y.
- Adams, A. Virginia, East Ave. School, Vineland, N. J.
- Adams, Clifton E., High School, Colchester, Ill.
- Adams, Luella, Aspen Hill, Tenn.
- Adamson, Belle, Norwood School, 116 Spring St., Marietta, Ohio.
- Adel, Mrs. E. E., Fiesler School, 530 So. Ohio Ave., Columbus, Ohio.
- Adsit, Ruth, Laramie, Wyoming.
- Afflerbach, Calvin E., Rural Supervisor, State Dept. of Ed., Sussex Co. Court House, Georgetown, Del.
- Ager, H. W., Beach School, 1947 Hawthorne Ave., Portland, Oregon.
- Agnew, Lizzie O., Walnut Grove Rural School, Moore, Spartanburg Co., S. C.
- Ahau, Akuni, Kailua School, Waimanalo, Oahu, Hawaii.
- Aklin, Wayne M., Sargent School, Monte Vista, Colo.
- Alderman, Mrs. Gertrude, Todd Ave. School, 509 N. Todd Ave., Warren, Ohio.
- Alexander, Mrs. Alevia, Woodmere School, St. Paul Hotel, Portland, Oregon.
- Alexander, Carter, Teachers College, Columbia Univ., New York, N. Y.
- Alexander, Hattie, Elizabeth School, 201 N. Caldwell St., Charlotte, N. C.
- Alexander, Miss Rae, Ethan Allen School, 7th & Bryant St., San Francisco, Calif.
- Allen, Lillie E., A. D. Bache School 22d and Brown Sts., 1730 No. 15th St., Philadelphia, Pa.
- Allen, Lora, 99 West Kansas, Pittsburg, Kans.
- Allen, Nell B., Emerson School, Box 35, Hoquiam, Wash.
- Allen, Oliver E., High School, 17 E. State St., Springfield, Ohio.
- Allhands, Mrs. Ida M., Fernwood School, 989 E. 11th St., North, Portland, Oregon.
- Altamer, M. H., College Hill School, Cincinnati, Ohio.
- Alter, Harvey E., Thomas St. School, Rome, N. Y.
- Amerman, Nora L., Lamar School, Houston, Texas.
- Anderson, Mrs. Cora S., Merriam Hotel, 106 S. 25th St., Omaha, Nebr.
- Anderson, Eldred R., High School, Belle Fourche, S. D.
- Anderson, Ellen R., 5 Greenview Ave., Princeton, N. J.
- Anderson, Emma C., 419 W. 76th St., Los Angeles, Calif.
- Anderson, Eylan, Purvis School, 1521 Egmont St., Brunswick, Ga.
- Anderson, John O., Bryant School, Duluth, Minn.
- Anderson, William, Dunbar School No. 101, 1513 Druid Hill Ave., Baltimore, Md.
- Andrews, Alice L., Dickey Ave. School, 40 Roselawn Ave., Warren, Ohio.
- Andrews, J. O., 2825 May St., Fort Worth, Tex.
- Andrews, John H., Webster School, Itasca Station, Superior, Wis.
- Andrews, Mary, McKinley School, Box 84, Santa Ana, Calif.
- Angland, Helen, 347 Van Houten St., Paterson, N. J.
- Anstice, Helen W., M. H. Landenberger School, 4th & George Sts., Philadelphia, Pa.
- Anthony, John W., Franklin School, Pittsburgh, Pa.
- Anthony, Sophie T., I. W. Benjamin School, 24 Maple View Terrace, New Bedford, Mass.
- Arce, Mrs. A. V., Legarda Elementary School, Lealtad, Sampaloc, Manila, P. I.
- Arehart, Claud A., Linnton School, 1475 E. Washington St., Portland, Ore.
- Armour, Charles, 1015 N. Ave., Rockford, Ill.
- Armstrong, Cora, Clarendon School, 335 Cleveland Ave., S. W. Canton, Ohio.
- Armstrong, Mrs. Mary F., Congress School, Grand Rapids, Mich.
- Arnold, Charles A., Stephen F. Austin School, 1005 Nolan St., San Antonio, Tex.
- Arnold, E. G., Alcott School, Denver, Colo.
- Arnold, Frank J., 622 Mansfield Place, Brooklyn, N. Y.
- Arnold, M. A., Horace Mann School, 29 Walnut St., Everett, Mass.
- Arnold, Mary L., West Hill School, Ithaca, N. Y.
- Arrington, Mrs. Empress, Lamar School, 1120 N. El Paso St., El Paso, Tex.
- Arrington, Mrs. Stella P., Sanford, Fla.
- Askin, Bessie D., Madison School, 362 Stratford Ave., Pittsburgh, Pa.
- Assman, E. C., Washington School, West Allis, Wis.
- Atkins, Robert S., Thomas N. Hart School, H. & E. Fifth St., South Boston, Mass.
- Atkinson, F. H., Henry Ford School, Highland Park, Detroit, Mich.
- Atterbury, Lydia, John Muir School, Berkeley, Calif.
- Atwater, Jane S., 6824 Harper Ave., Chicago, Ill.
- Augsburger, F. D., Supt. of Schools, Buhler, Kans.
- Auner, Cella R., Stevenson School, 205 Michigan St., Winfield, Kans.
- Austin, Fred P., Supt. of Schools, Chandler, Ariz.
- Austin, Mary N., Bancroft School, Omaha, Nebr.
- Axe, Fred W., 245 E. Pine St., Tujunga, Calif.
- Ayres, Florence N., Washington School, New Brunswick, N. J.

- Bache, Ada G., George Washington School, Louisville, Ky.
- Bacon, Meda, 731 Lafayette Ave., Grand Rapids, Mich.
- Badanes, Saul, Public School 173, Pa. Ave., Brooklyn, N. Y., 32 Cameron Ave., Babylon, L. I.
- Baer, Alice H., 10414 So. State St., Chicago, Ill.
- Bair, F. H., Supt. of Schools, 406 N. Weber St., Colorado Springs, Colo.
- Baker, Carl H., Tipton Public School, Tipton, Calif.
- Baker, Della F., North School, 245 E. Palace Row, Geneseo, Ill.
- Baker, Elizabeth S., 159 Paxton St., Harrisburg, Pa.
- Baker, N. A., Hosford School, 343 E. 46th St., Portland, Oregon.
- Baldwin, C. W., Kaahumanu School, 2614 Kuahine Drive, Honolulu, T. H.
- Banning, Eva L., Warren School, Cleveland, Ohio.
- Barbee, F. H., Scaritt School, Lexington & Askew, Kansas City, Mo.
- Barber, E. Olive, 110 N. Main St., Gloversville, N. Y.
- Barker, Mary C., John B. Gordon School, 123 Myrtle St., Atlanta, Ga.
- Barley, Ida L., Ashland School, Kansas City, Mo.
- Barnard, Margaret, Humphreys Ave. School, Los Angeles, Calif. Alhambra, Calif.
- Barnes, Mrs. Abbie, Ernst School, 707 Faraon St., St. Joseph, Mo.
- Barnes, George P., 1124 Clay St., Colusa, Calif.
- Barnes, Percival S., Supt. of Schools, East Hartford, Conn.
- Barns, Harold, Girard College, Philadelphia, Pa.
- Barr, Gertrude, Park Place School, 38 Elizabeth Apt., Chattanooga, Tenn.
- Barrett, Jennie M., School 50, 710 Gorsuch Ave., Baltimore, Md.
- Barry, Miss A. F., Rincon School, Stillman & 2d Sts., San Francisco, Calif.
- Bartholf, Harriet, Barret School, 842 Prospect Ave., Shreveport, La.
- Bartholf, Mrs. Kate J., Whittier School, Minneapolis, Minn.
- Bartine, Helen W., Cramp School, Howard & Ontario Sts., Philadelphia, Pa.
- Bartley, Mary E., Nolan School, 9 Third St., Fitchburg, Mass.
- Bash, Eugene H., Henry C. Kumpf School, 45th & Wabash, Kansas City, Mo.
- Bassett, A. F., Fowler School, Route B., Box 174, Sanger, Calif.
- Bates, Elizabeth, 1158 Fifth Ave., Los Angeles, Calif.
- Bates, Guy, Duyer School, 1111 Caniff St., Detroit, Mich.
- Bates, W. L., Lowell School, Centre St., Boston, Mass.
- Batman, Anna C., Longfellow School, Lincoln, Nebr.
- Bauerle, Martha, 324 So. Kostner St., Chicago, Ill.
- Baugh, Lila, Allen School, 2909 Fannin St., Houston, Tex.
- Baughman, W. L., Jefferson School, East St. Louis, Mo.
- Baum, Millicent, P. S. 101, 151 East 111 St., New York City.
- Bay, Mrs. Rose M., Beadle School, 709 So. Phillips Ave., Sioux Falls, S. D.
- Bean, Albert M., Jr., High School, Camden, N. J.
- Beatly, Willard W., Asst. Supt. and Prin. Jr. High, Skokie School, Winnetka, Ill.
- Beattie, Grace E., Smith School, 503 Medbury Ave., Detroit, Mich.
- Beaudry, Wilfred, Geo. E. Tracy School, 4 State St., Milford, Mass.
- Becher, William O., Trowbridge St. School, 925 Grove St., Milwaukee, Wis.
- Beck, E. Leone, Alabama School, St. Clair & 26th St.; home, 4257 E. 134th St., Cleveland, Ohio.
- Beck, J. O., Westwood School, 3044 Lischer Ave., Cincinnati, Ohio.
- Beckmann, Albertina, Jackson School, 5th & Mound, Cincinnati, Ohio.
- Bednar, Christine, Sherwood School, 245 W. 57th St.; home, 132 W. Marquette Road, Chicago, Ill.
- Beeby, Daniel J., Oglesby School, 7646 So. Green St., Chicago, Ill.
- Beers, George A., Clarke School, 3925 W. Van Buren St., Chicago, Ill.
- Beggs, V. L., 941 So. Grove Ave., Oak Park, Ill.
- Belding, Alice H., Abbott St. School, 34 Russell St., Worcester, Mass.
- Bell, Nellie, Second District School, 623 Vine St., Chattanooga, Tenn.
- Bell, O. E., Central Jr. High School, 127 8th St., Idaho Falls, Idaho.
- Bell, William M., Jr., 629 20th St., San Pedro, Calif.
- Bellamy, W. S., Cracken School, 401 N. Willomet, Dallas, Tex.
- Benedict, Myrtle L., Kentucky School, Cleveland, Ohio.
- Benfer, Mabel C., Washington School, 621 Keeler, Bartlesville, Okla.
- Benner, W. A., Emerson School, Oakland, Calif.
- Bennett, Arthur, East Park School, 322 McKinley Ave., Pittsburgh, Pa.
- Bennett, Mrs. V. B., Moorhead School, 40 Union Ave., Ingram, Crafton P. O., Pittsburgh, Pa.
- Benson, Bertha, 321 N. Lockwood St., Chicago, Ill.
- Benson, J. R., Eliot School, 4242 Grove St., St. Louis, Mo.
- Benthack, Emil, Supt. of Schools, Arnold, Nebr.
- Berard, Elvina, 1059 Plymouth Ave., San Francisco, Calif.
- Berg, Selmer H., 2408 Aldrich Ave., So., Minneapolis, Minn.
- Berghane, Frederick A., 9 Bayley Ave., Yonkers, N. Y.
- Berkaw, Geo. R., Russell School, 3480 Russell St., Detroit, Mich.
- Berry, George T., Durham, Calif.
- Berry, W. T., 221 Wood St., Maysville, Ky.
- Bettes, Lucy M., Madison School, 615 Prince St., Grand Rapids, Mich.
- Bickler, Peter, Grant St. School, Milwaukee, Wis.
- Biffer, Mary C., California St. School, 1253 W. 5th, Los Angeles, Calif.
- Bigelow, Merrill A., Consolidated School, Box 216, Washington Depot, Conn.
- Billings, Myra C., Rogers School, 1247 W. 13th St., Chicago, Ill.
- Bingham, H. Beth, South Side School, 215 E. Third St., Mishawaka, Ind.
- Birkam, George, Barstow School, Detroit, Mich.
- Birkenbauer, Louise, Longfellow School, 3304 Wabash Ave., Kansas City, Mo.
- Birnie, Jeannette, 523 W. 9th St., Grand Island, Nebr.
- Bisbee, Alma B., Brookville School, Brookville, Mass.
- Bisset, Mary C., Jenks School, 2519 S. Garnet St., Philadelphia, Pa.
- Bjorkman, Charles P., R. F. D. No. 1, Heber, Utah.
- Black, Mary J., Liberty School, 200 S. Rebecca St., Pittsburgh, Pa.
- Black, Mrs. Osborne I., Moreland School, 241 No. Candler, Atlanta, Ga.
- Blackburn, Wade F., Jr., High School, 692 McKee Ave., Monessen, Pa.

- Blackmore, Ida, Monmouth Park School, Omaha, Nebr.
- Blake, Katherine D., P. S. No. 6, Manhattan; home, 101 W. 85th St., New York, N. Y.
- Blakemore, Edith E., Lincoln School, 1030 W. Second St., Pomona, Calif.
- Blandford, Mrs. E. W., Glenhaven School, 154 Hazel Fern Place, Portland, Ore.
- Blankenship, Mrs. Essie, Wesley Heights School, 300 N. Brevard St., Charlotte, N. C.
- Blessing, Louise, Roosevelt School, 4837 Lytle St., Pittsburgh, Pa.
- Bliss, Carrie W., Acushnat Ave. School, 233 Arnold St., New Bedford, Mass.
- Bloodworth, Mrs. Jennie, Hill St. School, 70 W. 5th St., Atlanta, Ga.
- Bloom, George W., 723 East State St., Fremont, Ohio.
- Blough, H. B., Portsmouth School, 229 11th St., Portland, Ore.
- Boeckert, Alexander, Public School 100, Coney Island, Brooklyn, N. Y.
- Bogan, L. E., Okay, Okla.
- Bogan, William J., Lane Technical School, 1225 Sedgwick St., Chicago, Ill.
- Boland, Teresa M., Union School, Rutherford, N. J.
- Bolen, Elizabeth, South Park School, 1717 Julie St., St. Joseph, Mo.
- Bolebaugh, George B., Fairview School, Cincinnati, Ohio.
- Bolton, Belle, Hicks School, W. 24th St.; home, 1581 Dexter Place, Cleveland, Ohio.
- Bomford, Mrs. M. A., 215 Eagle St., Tampa, Fla.
- Bond, Elizabeth, Washington School, 1437 Sigsbee Ave., Salt Lake City, Utah.
- Bond, L. L., Hubbard, Iowa.
- Bond, Mary E., Henry Polk School, 1860 Columbia Road, Washington, D. C.
- Bonfield, C. Louise, St. Clair School, 1 Villa Beach Lake Shore Blvd., Cleveland, Ohio.
- Bonfield, Susan, Douglas School, 3211 Giles Ave., Chicago, Ill.
- Booman, F. Albert, Valley School, 515 3rd Ave., Kent, Wash.
- Booz, Mrs. Mary Convery, Columbus School, Brunswick Ave., Trenton, N. J.
- Bopst, M., Columbia St. School, Cumberland, Md.
- Borden, Nellie G., 715 N. Van Ness, Fresno, Calif.
- Bortle, Helen, Beck St. School, 254 S. Monroe Ave., Apt. 7, Columbus, Ohio.
- Bouhgan, Mary J. W., Sabin School, 2216 Hirsch St., Chicago, Ill.
- Boughton, O. B., Cumberland, Md.
- Boukofsky, Rebecca M., Paul Revere School, 605 Tenth Ave., San Francisco, Calif.
- Boulton, Isabella A., Public School 46, Woodhaven, New York, N. Y.
- Bovee, Earl E., Whittier School, 2014 So. Olive St., Sioux City, Iowa.
- Bowen, Warren R., Wallis School, 20 Pleasant St., Salem, Mass.
- Bowen, Wayne F., 403 So. Tamarind, Compton, Calif.
- Bowman, S. H., 7027 Converse Ave., Los Angeles, Calif.
- Bowman, S. P., Minor School, Ensley, Ala.
- Bowring, H. F., Vice-Principal, Prescott Jr. High School, 924 McKinley Ave., Oakland, Calif.
- Boyce, Thomas W., Cass St. School, 840 Marshall St., Milwaukee, Wis.
- Boyd, Anna B., Roe School, 456 Newstead Ave., St. Louis, Mo.
- Boyd, Charles H., Highland School, 1239 Rodney Ave., Portland, Oregon.
- Boyer, Martha E., 6420 N. 12th St., Philadelphia, Pa.
- Boyer, Monta J., Alameda School, Denver, Colo.
- Boyington, Jo Mae, Wilson School, 1115 W. 10th Ave., Spokane, Wash.
- Boyle, Minnie E., School No. 22, Paterson, N. J.
- Bracken, Angeline, 4913 Chicago St., Omaha, Nebr.
- Bracken, J. L., Supt. of Schools, Clayton High School, Clayton, Mo., *Honorary Member*.
- Bradley, Anne M., Peralta School, 412 63d St., Oakland, Calif.
- Bradshaw, Ruth, Fairbury, Ill.
- Brady, William, Washington School, East Orange, N. J.
- Bragg, Mrs. Elizabeth, State Teachers' College, 725 E. Madison St., Springfield, Mo.
- Brainard, Charles E., Supervising Principal, 82 Munroe St., Somerville, Mass.
- Braine, Elizabeth M., Public School No. 39, Queens, Far Rockaway, N. Y.
- Branson, Mrs. Lilla T., 34 Union St., Mount Holly, N. J.
- Brawley, Annie G., 215 Maxfield St., New Bedford, Mass.
- Breese, J. Clara, Burke School, 5308 Blackstone Ave., Chicago, Ill.
- Brennan, Fannie, Webster School, 1015 Henry St., St. Joseph, Mo.
- Brennan, George A., 24 W. 110th St., Chicago, Ill.
- Brewer, Jessie M., Central School, 14 Williams St., Pontiac, Mich.
- Bridgland, L. A., Whittier School, 2020 So. 5th East, Salt Lake City, Utah.
- Briggs, E. E., Smith School, 1506 Pierce St., Sioux City, Iowa.
- Briggs, Elizabeth M., Robert S. Ingraham School, New Bedford, Mass.
- Bright, J. B., 211 Forest Ave., Cleburne, Tex.
- Brightwell, Mamie, 605 W. 5th St., Fort Worth, Tex.
- Brinser, Ira S., Supt. of Schools, Lewes, Dela.
- Briscoe, Clara M., 651 Schiller Ave., Trenton, N. J.
- Broadus, Frances, City Point, Va.
- Broadwell, Carrie E., Halle School, Cleveland, Ohio.
- Brock, Roby, 809 Cherry St., Cadillac, Mich.
- Brookes, Emma, Chesterfield School, Cleveland, Ohio.
- Brooks, C. J., Madisonville School, Cincinnati, Ohio.
- Brooks, Robert P., School 3, 347 E. 37th St., Paterson, N. J.
- Brophy, John M., Driggs Grammar School, 1 Pequot St., Waterbury, Conn.
- Brossard, Julia E., Clayton School, 240 W. Argonne, Kirkwood, Mo.
- Broucek, Elizabeth M., 32 Elmer St., Burnside, Conn.
- Brown, Charles H., Dumas School, 38 S. 15th St., St. Louis, Mo.
- Brown, Clyde A., Corkery School, 229 Gage Road, Riverside, Ill.
- Brown, Eddythe J., 423 W. La Salle Ave., So. Bend, Ind.
- Brown, Elmer, Rose City Park School, 759 E. 27th St., N., Portland, Oregon.
- Brown, Georgia M., 426 E. Oak St., Louisville, Ky.
- Brown, Mrs. Huldah H., Stavola Ave., Stratford, Conn.
- Brown, H. May, Thirteenth St. School, 517 Cedar Ave., Niagara Falls, N. Y.
- Brown, Mrs. Jeanette, Michigan School, 1224 Bates St., Grand Rapids, Mich.
- Brown, Lillian M., Woodward Ave. School, Kalamazoo, Mich.
- Brown, W. O., Kennedy School, Cincinnati, Ohio.
- Brown, Zadie, Lynbrook School, 52 Union Place, Lynbrook, N. Y.



- Browne, Emma B., Leath School, Memphis, Tenn.
- Bryan, John E., 1015 Sycamore St., Birmingham, Ala.
- Bryant, Charles Edmund, Spice School, Carroll St., Akron, Ohio.
- Buchanan, Mrs. B. M., Beaumont School, 495 Greenwood Ave., Portland, Oregon.
- Buchanan, William D., Jackson School, 5511 Vernon Ave., St. Louis, Mo.
- Buckingham, B. R., Bureau of Educational Research, Ohio State University, Columbus, Ohio.
- Buckley, Charles, Supervising Principal, Harrity, 56th & Christian Sts., Philadelphia, Pa.
- Buckley, Elizabeth, Rockland School, Crook, Colo.
- Budd, Francis H., Bangs Ave. School, Asbury Park, N. J.
- Buerkin, Katherine, Lincoln School, Bowman Hotel, Nogales, Ariz.
- Bullock, Caroline M., Third St. School, Niagara Falls, N. Y.
- Burdge, Adelaide R., Milo School, 62 E. Norwich Ave., Columbus, Ohio.
- Burdick, Annie P., Arthur Ave. School, 32 Lennox Ave., Providence, R. I.
- Burdick, W. H., Union School, Union St., Schenectady, N. Y.
- Burkard, William E., Geo. W. Childs School, 5606 N. 13th St., Philadelphia, Pa.
- Burke, Catherine A., Vanderpoel School, 9510 Prospect Ave., Chicago, Ill.
- Burke, Hanna, School 29, 222 So. Park Ave., Buffalo, N. Y.
- Burke, James A., Garfield School, Knox & Atlantic Sts., Spokane, Wash.
- Burke, Mrs. Katherine M., Principal of Schools, Ewa Oahu, Hawaii.
- Burke, L. C., Riverside School, 176 Wisconsin, Memphis, Tenn.
- Burns, Lillian O., E. Rome & Columbus School, 111 W. Linden St., Rome, N. Y.
- Burris, Frances A., Jackson School, St. Joseph, Mo.
- Bursk, J. W., Webster School, Findley & Republic, Cincinnati, Ohio.
- Burt, Gertrude, Elmwood School, 1200 46th St., Des Moines, Iowa.
- Burt, Rose, Sup. Twp. School, Box 488, Bessemer, Mich.
- Bury, Agnes E., Bryant School, 5627 John Ave., Superior, Wis.
- Bush, Fred S., Bloomfield, N. J.
- Bush, Leslie E., Newsome High School, Newsome, Va.
- Bushnell, Rose J., Hermon School, 517 Redfield Ave., Los Angeles, Calif.
- Butler, E. H., Washington School, No. 26th & Washington Sts., Tacoma, Wash.
- Butler, Margaret F., Douglas School, 30 So. St. Albans St., St. Paul, Minn.
- Butts, Lois C., Milton Junction, Wis.
- Byrne, Clara E., Everett School, St. Joseph, Mo.
- Caldwell, A. B., North Graded School, Winston-Salem, N. C.
- Caldwell, Maud, 150 Rice St., Alliance, Ohio.
- Callahan, Julia F., Lincoln School, 21 Holyoke St., Lynn, Mass.
- Callan, Marguerite K., Maple Ave. School, Barrington, R. I.
- Cambern, Margaret, 2139 Kent St., Los Angeles, Calif.
- Cameron, James B., Maple Ave. School, 135 E. Liberty St., Girard, Ohio.
- Camp, Frederick S., Supervisor Elementary Education, Board of Education, Hartford, Conn.
- Campbell, A. A., Thompson School, 1163 Hoight St., Portland, Ore.
- Campbell, Cora, Bancroft School, 4026 East 67th St. Terrace, Kansas City, Mo.
- Campbell, Florilla, Lincoln School, 825 N. Baker St., Stockton, Calif.
- Campbell, G. A., Gordon School, Memphis, Tenn.
- Campbell, Isabelle M., East View School, 2249 E. 83d St., Shaker Heights, Cleveland, Ohio.
- Campbell, Joseph P., Lee High School, Lee, Ill.
- Campbell, Mary M., Campbell School, 30 Grand Ave., Oakland, Calif.
- Campbell, Maud, Newton, Iowa.
- Campbell, Oliver H., Supt. of Schools, Victor, Mont.
- Canonizado, Juan, Parang Elementary School, Parang, Sulu, P. I.
- Caradine, Jane, Crockett School, 1810 Bingham St., Houston, Tex.
- Carback, Clarence H., Kenderton School, 4613 Morris St., Germantown, Philadelphia, Pa.
- Carheart, Blanche, 177 Chestnut St., Battle Creek, Mich.
- Carls, Rufina A., P. S. 42, Manhattan, Hester & Essex Sts., New York, N. Y.
- Carlsbad Grammar School, Carlsbad, N. Mex.
- Carnine, Jennie M., Hawthorne School, 385 8th Ave. S., Fargo, N. D.
- Carothers Alice, Union School, Cleveland, Ohio.
- Carpenter, Clarence, Neely School, 2821 Lafayette St., St. Joseph, Mo.
- Carpenter, Harriet, Box 118, Aberdeen, S. D.
- Carpenter, Mrs. Gertrude L., Washington School, 473 Laughlin Road, Stratford, Conn.
- Carpenter, Nette, 416 Rigsby Ave., San Antonio, Tex.
- Carrington, Ralph W., Bunker Hill School, Waterbury, Conn.
- Carrithers, Nell, Fairbury, Ill.
- Carroll, Agnes, 451 Highland St., Cumberland, Md.
- Carroll, Mae B., 239 Palmer E., Detroit, Mich.
- Carter Charlotte, School No. 72, 329 E. 30th St., Indianapolis, Ind.
- Cartledge, Franklin F., Sharswood School, Philadelphia, Pa.
- Casebere, Mrs. Laura A., Franklin School, 345 E. 54th St., Portland, Oregon.
- Casey, Thomas J., Gladstone School, 5559 W. Adams St., Chicago, Ill.
- Casey, William V., Supt. of Schools, 820 Pine St., Boulder, Colo.
- Cass, Mary A., Merriman School, 27 Marion Ave., Waterbury, Conn.
- Cassidy, H. A., Alki School, Seattle, Wash.
- Cassidy, Mabel M., Public School No. 36, 341 Union St., Jersey City, N. J.
- Caswall, Katherine B., Kent School, S. Arlington St., Akron, Ohio.
- Cavanah, Lucretia LeB., 5009 Franklin Ave., Cleveland, Ohio.
- Caverno, Cora, 1550 E. 65th Place, Chicago, Ill.
- Cecil, Ruth, 909 Summit Ave., Minneapolis, Minn.
- Chadwick, R. D., Morgan Park School, Duluth, Minn.
- Chamberlain, Amos, Public School No. 9, Jersey City, N. J.
- Chambre, Marguerite, 22 Mountain Ave., Dover, N. J.
- Chandler, Maud, Chestnut St. School, Chattanooga, Tenn.
- Chandler, Mrs. Myrtle B., Dayton Heights School, 369 Lucas Ave., Los Angeles, Calif.
- Chandler, Willard R., Union Ave. School, Los Angeles, Calif.
- Chaney, Florence A., 49 Boston St., Somerville, Mass.



- Chapman, Grace, Jefferson School, Spokane, Wash.
- Chapman, Mrs. Jewel, Hawthorne School, Oklahoma City, Okla.
- Chapman, Mary Olivia, Romero School, Route 2, c/o J. R. Menzel, Gustine, Calif.
- Charters, Daisy I., John Burroughs School, The Lenox, Columbus, Ohio.
- Chase, Fannie B., Feeding Hills, Mass.
- Chase, Inez J., Carlile School, 201 W. Abriendo Ave., Pueblo, Colo.
- Chase, L. S., Glenfield School, Montclair, N. J.
- Chase, Martha B., Francis St. School, 808 Bush St., Jackson, Mich.
- Chatfield, Hazen, Public School 145, 101 Noll St., Brooklyn, N. Y.
- Chidlaw, W. M., Saylor Park School, Ivanhoe, Cincinnati, Ohio.
- Chiles, E. E., Dozier School, 5749 Maple Ave., St. Louis, Mo.
- Chinnock, Mrs. A. M., Normandale School, 995 Clinton St., Portland, Oregon.
- Christianar, Alice, Sunbeam School, 9322 Talbott Ave., Cleveland, Ohio.
- Christiancy, Mrs. Martha W., Mason School, 120 No. 42 St., Omaha, Nebr.
- Christie, Mary S., Supervising Principal, Alcott School, 425 Independence Ave., Waterloo, Iowa.
- Churchill, Mrs. Minnie H., Waiialua School, Waiialua, Oahu, Hawaii.
- Civilie, Mrs. Jessie, 163 E. Pasadena St., Pomona, Calif.
- Clampitt, Xenia C., 6805 North 11th St., Oak Lane, Philadelphia, Pa.
- Clark, F. Leslie, 2424 Montgall St., Kansas City, Mo.
- Clark, Jeanette A., Sherman School, 29 E. Grand St., Rahway, N. J.
- Clark, Kenley J., 353 Mt. Vernon Ave., Portsmouth, Va.
- Clarke, C. Ernest, West Intermediate School, Davenport, Iowa.
- Clarke, Frank A., Van Nuys Elementary School, 146 W. 49th St., Los Angeles, Calif.
- Claypool, Carrie, Aiea School, Aiea, Oahu, T. H.
- Claypool, Mary F., 17th St. School, 1287 W. 25th St., Los Angeles, Calif.
- Cleavenger, W. C., Thaddeus Stevens School, 1028 Steuben St., Pittsburgh, Pa.
- Cleland, Lillian A., Fairfax School, 1728 E. 116th Place, Cleveland Heights, Ohio.
- Clem, Chester G., Washington St. School, R. F. D. 7, Frederick, Md.
- Clemens, K. F., Wasco Union School, Wasco, Calif.
- Clemens, Paul B., Asst. Supt. of Schools, 10th & Prairie Sts., Milwaukee, Wis.
- Clemson, Mary W., Open Air School, 1224 Madison Ave., Columbus, Ohio.
- Clephane, U. D., Evanston School, Cincinnati, Ohio.
- Clickner, Sara H., 835 W. William St., Decatur, Ill.
- Cline, Anne V. A., School No. 5, 115 Francisco Ave., Rutherford, N. J.
- Cobb, Charles C., Carpenter School, 1830 Chase Ave., Chicago, Ill.
- Cobb, Pluma, 10th St. School, 10th & Patterson Sts., Newport, Ky.
- Cober, E. W., Holmes School, 1419 Elm St., Wilkinsburg, Pa.
- Coddington, A. O., Greene Stewart School, 1519 Estes Ave., Chicago, Ill.
- Coffin, Alice J., Warren School, Melrose, Mass.
- Cogil, Annie M. T., Hayward School, Apt. 202, Lu Lan Farl, 17th & M., Lincoln, Nebr.
- Coggin, Anna C., 810 Edgecomb Pl., Chicago, Ill.
- Cogshall, Charles H., Hall School, 1950 Francis Ave., Grand Rapids, Mich.
- Colburn, Jessie B., Jr., High School 96, Manhattan, 8 West 103 St., New York, N. Y.
- Colburn, W. P., Park St. School, Milwaukee, Wis.
- Colby, Evelyn F., Goodrich, 915 W. Taylor St., Chicago, Ill.
- Colding, Kate, Herff School No. 18, 403 Ave. E., San Antonio, Tex.
- Cole, Perry O., Orcutt, Calif.
- Cole, R. H., Simmons School, 4210 W. Belle Pl., St. Louis, Mo.
- Coleman, J. G., Public School No. 2, Hoboken, N. J.
- Coleman, L. A., R. F. D. No. 2, Springfield, Mass.
- Colestock, Mary A., Hewitt St. School, 126 So. Hewitt St., Los Angeles, Calif.
- Coll, John J., East St. and Spring Hill Schools, 208 S. Mathilda St., Pittsburgh, Pa.
- Collier, Bessie V., Greeley School, 1110 Caledonia St., Butte, Mont.
- Collier, Genevieve L., Lincoln School, 42 Park Ave., Port Chester, N. Y.
- Collins, C. B., Wendell Phillips School, No. Sta., Boston, Mass.
- Compton, C. V., San Jacinto School, El Paso, Tex.
- Comstock, W. H., Shakespeare School, 2031 E. 72d Place, Chicago, Ill.
- Condon, Anna A., Waterside School, 74 Gardan St., Stamford, Conn.
- Connell, Mary S., 290 So. Beacon St., Fall River, Mass.
- Connelly, Augusta M., Market St. School, 302 Reed St., Clearfield, Pa.
- Connlar, Anna S., Hammel St. School, Cor. Hammel & Brannick Sts., Los Angeles, Calif.
- Connolly, Edna, 8003 Hough Ave., Cleveland, Ohio.
- Connor, June, Irving School 1600 Nebraska St., Sioux City, Iowa.
- Connor, Mary F., 113 Culbertson Ave., Trenton, N. J.
- Converse, L. R., Gorman School, St. Paul, Minn.
- Conway, Mary, Public School 15, Borough Richmond, Tomkinsville, Staten Island, N. Y.
- Cook, Louis D., John B. Devalles School, 2 Morgan Terrace, New Bedford, Mass.
- Cook, Selda, Outhwaite School, 5810 Clinton Ave., Cleveland, Ohio.
- Cooper, Adelaide J., 68th St. School, R. F. D. 129 C, Los Angeles, Calif.
- Cooper, C. P., State St. School, 18 Pine St., Windsor, Vt.
- Cooper E. J., Supt. of Schools, Guttenberg, Iowa.
- Cooper, Elizabeth, 607 Linden, Memphis, Tenn.
- Cooper, Harry P., Supt. of Schools, Miller, S. D.
- Copeland, Eunice D., 1107 E. Denny Way, Seattle, Wash.
- Corbett, Clara Bess, Benjamin Franklin School, Bailey Block, Eveleth, Minn.
- Corbett, Della A., James M. Aldrich School, 3 Hamby St., Fall River, Mass.
- Corbin, H. B., 398 W. Tompkins St., Galesburg, Ill.
- Corbin, J. Belle, Bancroft School, Lincoln, Nebr.
- Corcoran, Teresa M., McKinley School, Dayton, Ohio.
- Cordozo, Truman V., Washington School, Modesto, Calif.
- Corish, Gertrude L., Cedar St. School, 86 Mill St., New Bedford, Mass.
- Cornish, Lydia R., Evans School, W. 11th Ave. & Acoma St., Denver, Colo.

- Cornish, William B., Center & Elm St. School, 59 Lafayette St., Stamford, Conn.
- Correll, Edna E., School No. 23, Gough & Wolfe Sts., Baltimore, Md.
- Corrigan, Gertrude, Congress Hotel, Chicago, Ill.
- Cort, Ambrose, Public School No. 73, Rockaway Ave., Brooklyn, N. Y.
- Cosgrove, Katherine, Washington School, Ottawa, Ill.
- Cotrel, Lucy, Buena Vista School, Bryant & 18th, San Francisco, Calif.
- Cottingham, James M., Benton School, Kansas City, Mo.
- Couchman, H. H., Manchester Ave. School, Los Angeles, Calif.
- Coughlin, John L., Columbus School, 1115 Brown's Ave., Erie, Pa.
- Cowan, C. W., Sanborn High School, Sanborn, Iowa.
- Cowan, Rose E., Cambria School, 200 N. Rampart Blvd., Los Angeles, Calif.
- Cox, Bertha F., Anthony Wayne School, Philadelphia, Pa.
- Cox, Frederica, 304 W. 4th St., Coffeyville, Kans.
- Cox, Henley L., Wendell Phillips School, Kansas City, Mo.
- Cox, Philip W. L., Washington School, 17 E. 60th St., New York, N. Y.
- Cox, Mrs. Winona S., Moultrie, Ga.
- Coy, Emma, Hall School, 478 N. Fourth St., Rockford, Ill.
- Coyte, Florence E., Linden Avenue School, Glen Ridge, N. J.
- Craig, Christine, Yorkville School, 14 Elm St., Whitesboro, N. Y.
- Crandall, J. Myrtle, 1110 2d Ave., N., Great Falls, Mont.
- Crane, Blanche, 214 West B., Grants Pass, Ore.
- Crane, Clarence B., Oakland School, 1550 La Loma, Berkeley, Calif.
- Crane, H. L., Oakley School, 5636 Bramble Ave., Cincinnati, Ohio.
- Crane, Mrs. Mary E., Angel School, 47 Ransom St., Muskegon, Mich.
- Crane, W. B., Ramona School District No. 43, 1021 N. Mariposa Ave., Los Angeles, Calif.
- Crapser, Jessamine, Woodcrest School, 2020 Magnolia (So.), Los Angeles, Calif.
- Craske, Fred H., Capitol Hill School, Primrose Ave., Multomah Station, Portland, Oregon.
- Craven, Ina E., Box 112, Ogden, Utah.
- Craven, J. H., 315 E. 39th St., Covington, Ky.
- Crawford, Bertha T., 2371 Thompson St., Los Angeles, Calif.
- Creedon, Clara W., Haven School, 308 N. Waller Ave., Chicago, Ill.
- Cronin, John, Lincoln School, Delta & Golden, Cincinnati, Ohio.
- Crowley, Kate H., Mission Grammar School, San Francisco, Calif.
- Crumrene, M. Ella, Grant School, 917 Chislett St., Pittsburgh, Pa.
- Culler, Bess E., South School, 204 Knob Hill, Redondo Beach, Calif.
- Culver, Harriet E., Arlington Heights School, 6523 Meridian St., Los Angeles, Calif.
- Cummings, Anna, 909 Michigan Ave., Evanston, Ill.
- Cummings, Anna F., Westville School, 169 High St., Taunton, Mass.
- Cummings, Helen Howe, P. O. Box 417, South Acton, Mass.
- Curfman, Bessie, Harris School, Akron, Ohio.
- Curry, A. R., Hyde Park School, Kansas City, Mo.
- Cushing, Lena, 27 Fellows St., Danvers, Mass.
- Cushman, C. L., Supt. of Schools, Schleswig, Iowa.
- Cutler, J. Katherine, Shepard School, 4008 Sheridan Rd., Chicago, Ill.
- Dale, Ralph B., Taggart School, 4th & Porter Sts., Philadelphia, Pa.
- Dalin, Judith H., P. A. Peterson School, 910 Third Ave., Rockford, Ill.
- Daly, Margaret, 25th District School, Waverly Ave., Cincinnati, Ohio.
- Daniel, P. S., Jr. High School, Raleigh, N. C.
- Dannelly, Paul E., Chautauqua Rural High School, Chautauqua, Kans.
- Darling, Mrs. Emily D., Samuel Strong School, 409 W. Lexington Ave., Elkhart, Ind.
- Darnell, Callie, 1622 Winfield St., Los Angeles, Calif.
- Davidson, David M., Seward School, Chicago, Ill. 339 Bonnie Brae, River Forest, Ill.
- Davis, Alice A., Wheeler School, 43 Beech St., Winchendon, Mass.
- Davis, Bertha S., Lincoln School, 43 East Emerson, Melrose, Mass.
- Davis, Courtland V., J. E. B. Stuart School, 1314 Holland Ave., Norfolk, Va.
- Davis, G. H., Riverside School, Leland Ave., Cincinnati, Ohio.
- Davis, Mrs. W. P., Grant Park School, 72 Park Ave., Atlanta, Ga.
- Dawley, Sara J., West End School, 10 Pleasant St., Whitinsville, Mass.
- Dean, W. A., 2823 E. 5th St., Tulsa, Okla.
- Dearness, F. W., Sands School, 452 Riddle Road, Cincinnati, Ohio.
- DeAtley, Glenn O., Jr. High School, Wood River, Ill.
- De Chaumes, Helen C., Taylor School, 2205 San Jacinto St., Houston, Tex.
- DeChaumes, Hortense A., Helms School, 2203 San Jacinto St., Houston, Tex.
- Decker, Mrs. Adelaide, 129 Orchard Place, Battle Creek, Mich.
- Deevers, Roland G., Washington School, 705 Ivy St., Pittsburgh, Pa.
- Deighton, Ida M., Bolton Elementary Training School, 1619 Hill Crest Rd., Cleveland Heights, Ohio.
- Delamere, Lulu, 491 Judd St., Woodstock, Ill.
- Derby, Mary M., 1030 Cleveland Ave., Kansas City, Mo.
- Des Roches, Pauline, Hillcrest School, 1323 Woolsey St., San Francisco, Calif.
- Devereux, Helena T., Devereux School, Berwyn, Pa.
- Dickinson, Amy, Jr. High School, Sterling, Colo.
- Dickson, J. C., Warren Ave. School, Seattle, Wash.
- Dickson, W. A., Oakley Green School, 988 E. Ankery St., Portland, Oregon.
- Diem, Marie L., 733 Monroe Ave., Scranton, Pa.
- Dietz, Charles E., School No. 24, 65 Boyle Ave., Paterson, N. J.
- Diggins, S. Grace, McKinley School, W. 125th St. near Lorain, Cleveland, Ohio.
- Dillehay, A. J., Robinson School, Akron, Ohio.
- Dimmick, Fenton H., School No. 1, 349 Crescent Ave., Buffalo, N. Y.
- Dingle Mary M., Alexander School, 612 Egen St., Shreveport, La.
- Dingley, Vivian A., Homer School, 26 Irving St., Cambridge, Mass.
- Dirimple, Belle, South Seattle School, 4334 7th Ave., N. E., Seattle, Wash.
- Dix, L. H., Woodbridge, N. J.
- Dixon, Laura C., Center School, West Hartford, Conn.
- Dobbs, Alice, 901 Market St., Beatrice, Nebr.

- Dobbs, J. Lawrence, Hinchman School, Haddonfield, N. J.
- Dobbs J. H., Milton School, 420 So. Emerson, Denver, Colo.
- Dodge, Violetta R., Mystic School, 41 Lloyd St., Winchester, Mass.
- Doerr, Georgia, Franklin Ave. School, 310 E. Main St., Lansing, Mich.
- Doerr, Loretta Rose, McDonough School No. 15, 1323 N. Ramkart St., New Orleans, La.
- Dolan, Edith A., Mary Dill School, 74th St., Cincinnati, Ohio.
- Dolton, Isabella, 333 Lincoln Ave., Dolton, Ill.
- Donald, Helen M., Central School, 68 Pleasant St., Orange, Mass.
- Donaldson, Teresa M., Principal of Schools, Northfield, Wis.
- Doniat, Thecla, 4129 Kenmore Ave., Chicago, Ill.
- Donnelly, May I., 72 School St., Burlington, Vt.
- Donoghue, Mary M., A. J. Lowrie School, 454 South St., Elgin, Ill.
- Doolittle, Laura M., Frances E. Willard School, 11 Grant St., Warren, Ohio.
- Doran, Margaret, Oakdale School, 439 Fulton St., Grand Rapids, Mich.
- Doran, Nora F., Dore School, 758 W. Harrison St., Chicago, Ill.
- Dorgan, Margaret K., 126 Oak St., Darlington, S. C.
- Dorman, Hugh B., Hawthorne School, 266½ E. 30th St., Portland, Oregon.
- Downes, Harold M., Supervising Principal, Barneget, N. J.
- Downing, M. J., Fern Hill School, 1012 So. 7th St., Tacoma, Wash.
- Downs, S. U., Eliot School, 592 Stanton St., Portland, Oregon.
- Doyen, Gertrude, Jefferson Hall School, 1404 E. Jefferson Ave., Detroit, Mich.
- Doyle, Florence A., James Wilson School, 2424 Clifford St., Philadelphia, Pa.
- Doyle, Julia H., Public School 11, 314 W. 17th St., New York, N. Y.
- Dresser, Minnie, Seven Oaks School, 2505 E. 37th St., Kansas City, Mo.
- Drew, Elizabeth L., Grensauls School, 4640 Drexel Blvd., Chicago, Ill.
- Drewry, Miss M., 1524 S. 2d St., Apt. 6, Louisville, Ky.
- Dreyfus, Florence, Christine School, Memphis, Tenn.
- Driver, Emma McC., Washington School, 36 Washington St., Beverly, Mass.
- Dudley, Albert W., General Philip Kearney School, 6th St. & Fairmount Ave., Philadelphia, Pa.
- Duffy, Fred H., La Belle View School, Steubenville, Ohio.
- Duffy, Isabel S., Main St. School, 29 Ridge Ave., Athol, Mass.
- Duggan, J. N., 16 N. Mayfield St., Chicago, Ill.
- Duncan, Mrs. Oma L., Oloa School, Oloa, Hawaii.
- Dungee, J. Riley, 919 Wood St., Norfolk, Va.
- Dunkirk, Wolphine, 8700 Bay Parkway, Brooklyn, N. Y.
- Dunn, Mrs. E. R., Hamline School, 4747 So. Bishop St., Chicago, Ill.
- Dunn, Etta A., Fineview School, 4112 Penn Ave., Pittsburgh, Pa.
- Dunne, Marie A., Nobel School, 4127 Hirsch St., Chicago, Ill.
- Dunning, Flora C., Tennyson School, 5511 Lakewood Ave., Chicago, Ill.
- Durand, May R., Suto School, 120 Tenth Ave., San Francisco, Calif.
- Durbin, Lorene, Briar Hill School, 332 Lincoln Ave., Youngstown, Ohio.
- Durham, M. E., Leschi School, Seattle, Wash.
- Dutcher, Edward H., Eastern School, East Orange, N. J.
- Duvall, Rufus A., 2614 N. 32d Ave., Birmingham, Ala.
- Duvalle, Lucie N., Phyllis Wheatley School, 1923 W. Chest St., Louisville, Ky.
- Dyer, Charles E., Shields Hts. School, 30 E. 28th St., South, Oklahoma City, Okla.
- Dyer, E. F., Dewey School, 3164 High St., Oakland, Calif.
- Eagleton, W. H., Villa Park School, 2275 Elm St., Denver, Colo.
- Eastman, Mrs. Helen B., Emmet School, 711 Wellington Ave., Chicago, Ill.
- Easton, Norman S., Davis School, 458 High St., Fall River, Mass.
- Eaton, Gertrude F., Prin. Normal School, Sioux City, Iowa.
- Eaton, Jeannette M., Prin. Belmar School, Lang & Hermitage Sts., Pittsburgh, Pa.
- Ebert, Jessie D., Clinton School, Schenectady, N. Y.
- Eddy, Clara D., Harvard, Mass.
- Edgar, Robert H., Clayton School, Clayton Ave., Pittsburgh, Pa.
- Edgerton, Ida M., Scranton School, 1413 Branch Ave., Cleveland, Ohio.
- Edmunds, Catherine, 2525 Oak Hill Ave., Youngstown, Ohio.
- Edwards, C. R., 1121 West 2d Ave., El Dorado, Kans.
- Edwards, Margaret W., Cleveland School, Ohmer Park, Dayton, Ohio.
- Egan, Mrs. Anna H., Lowell School, 27th & Madison, Kansas City, Mo.
- Egan, Nora L., Hely School, 2672 West Gd. Blvd., Detroit, Mich.
- Eger, Alfred, 12th District School, Cincinnati, Ohio.
- Ehrenfeld, A., 3136 Broadway, New York, N. Y.
- Eissler, Louise, Birney School, 9th & Lindley Ave., Philadelphia, Pa.
- Elder, Miss M. E., Edw. Everett Hale School, Everett, Mass.
- Ellert, Wm. H., Webster School, Seattle, Wash.
- Elliott, Irene C., School No. 2, R. F. D. No. 2, Elmira, N. Y.
- Ellis, Elizabeth, Park Hill School, 1055 Lincoln St., Denver, Colo.
- Ellis, Esther E., 1432 Florencedale, W., Youngstown, Ohio.
- Ellis, Mannie I., Riverside School, Decatur, Ill.
- Ellison, H. B., Whitman School, Wenatchee, Wash.
- Ellison, Rose A., Jefferson St. School, Little Falls, N. Y.
- Ely, Mary E., School No. 31, Schroeder & Pierce Sts., Baltimore, Md.
- Emerson, Edith W., Russell School, Arlington, Mass.
- Emery, Fred S., Hubbard School, 328 East Sandusky Ave., Bellefontaine, Ohio.
- Emig, G. C., McKinley School, Cincinnati, Ohio.
- Emrey, J. Thornton, T. M. Peirce School, 23d & Cambria, Philadelphia, Pa.
- Engell, Annie G., Baldwin School, 2311 S. 21st St., Philadelphia, Pa.
- Engleman, Rose L., Sanford B., Ladd School, 37th & Benton, Kansas City, Mo.
- Ephraim, Janette, Sunnyside School, 705 Broderick St., San Francisco, Calif.
- Esson, V. E., Supt. of Schools, Hillsboro, N. D.
- Estabrook, Ethel M., Pulaski School, 328 W. Sixth Ave., Gary, Ind.
- Evans, Abel J., John Hay School, 5215 Chester Ave., Philadelphia, Pa.
- Evans, E. H., Lincoln School, 24th & Colby, Everett, Wash.
- Evans, Elizabeth, Harding School, 656 Elm St., Youngstown, Ohio.



- Evans, Herbert H., Principal of Schools, Roseland, N. J.
- Everett, G. E., Lakeland, Fla.
- Eversull, Frank L., Woodward School, 610 Dover Place, St. Louis, Mo.
- Fagan, Charles, Cascade School, Seattle, Wash.
- Fales, Minerva E., Driscoll School, 783 Washington St., Brookline, Mass.
- Fallon, Minnie E., Burroughs School, 6201 Kimbark Ave., Chicago, Ill.
- Farrar, Alice, Daniel Butler School, Waverly, Mass.
- Farrar, Frank, Washington Irving School, Seattle, Wash.
- Farrow, R. D., Bruce School, Memphis, Tenn.
- Fassig, Elizabeth, 8th Ave. School, 297 E. Lane Ave., Columbus, Ohio.
- Fearing, H. W., Supt. of Schools, Cooper, Iowa.
- Fee, Lena M., Otto Roeser School, 710 S. Oakley, Saginaw, W. S., Mich.
- Feinauer, Christine, Derry, N. H.
- Fellows, Mary E., Newberry School, 1922 Patterson Ave., Chicago, Ill.
- Felt, Edna, Roosevelt School, E. 200th St., Euclid, Ohio.
- Fennimore, Roland, Willow St. School, Fair Haven, N. J.
- Ferguson, C. E., Alameda School, 829 77th St., N. E., Portland, Oregon.
- Ferris, Emma G., Baltimore St. School, Lynn, Mass.
- Ferris, Olive, 47 Buckingham Apts., Salt Lake City, Utah.
- Fickscher, Louise L., School 35, Hanover & Winder Sts., Baltimore, Md.
- Fikes, Edith E., 472 Ocean, Santa Cruz, Calif.
- Finch, Adelaide V., 39 Howard St., Lewiston, Maine.
- Fink, Jessie Alice, North Ward School, 1445 11th St., Greeley, Colo.
- Fink, Mrs. Jessie M., Palmer School, Grand Rapids, Mich.
- Finley, Dora, Secy. Administration Club, 101 City Hall, Sioux City, Iowa.
- Fisher, G. N., Tandy School, 1012 Annin St., Fort Worth, Tex.
- Fisher, Harriet M., 226 Harrison Ave., New Brunswick, N. J.
- Fisk, Mrs. Elizabeth E., Schneider School, 4258 N. Winchester Ave., Chicago, Ill.
- Fitch, Mrs. Margaret S., Prescott School, 4341 N. Keeler Ave., Chicago, Ill.
- Fitzgerald, Gertrude, Box 112, Ogden, Utah.
- Fitzgerald, Jessie J., School 77, Washington St. nr. Fayette, Baltimore, Md.
- Fitzgerald, Mrs. Mary M., John Swett School, 401 Fillmore St., San Francisco, Calif.
- Flagg, Sadie E., 36 Temple St., Springfield, Mass.
- Flaven, Mary E., Clay School, 7th & Ewing, Kansas City, Mo.
- Flessa, H. L., Sherman School, Cincinnati, Ohio.
- Flowers, Ida V., Montebello School, Baltimore, Md.
- Flowers, Mrs. M. M., McComb City, Miss.
- Floyd, James R., 714 Richmond St., Plainfield, N. J.
- Floyd, M. L., 1018 Seward St., Los Angeles, Calif.
- Flynn, Mary C., Micheltorena St. Elementary School, 1511 Micheltorena St., Los Angeles, Calif.
- Foguell, Bertha E., 59 Mauton St., Fall River, Mass.
- Folke, Clara, William Rockhill Nelson School, 53d & Holmes, Kansas City, Mo.
- Follis, Hattie, 1619 Jefferson Ave., Birmingham, Ala.
- Follmer, Katherine, Nebraska Normal School, Normal, Nebr.
- Folsom, Sylvia A., Harrison School, 130 Frederick St., San Francisco, Calif.
- Footman, Carrie E., Sarah D. Ottiwell School, 18 7th St., New Bedford, Mass.
- Force, Anna L., Lincoln School, Denver, Colo.
- Ford, Annie G., Douglas School, Franklin & Dupont, So., Minneapolis, Minn.
- Ford, C. L., Washington, Mo.
- Ford, Stephen W., 1112 Myrtle St., Oakland, Calif.
- Ford, W. I., Gregory Heights School, 701 E. 69th St., Portland, Oregon.
- Forkin, Mary A., Audubon School, 3929 Ellis Ave., Chicago, Ill.
- Forrest, Edwin, School No. 95, Lexington nr. Fremont Ave., Baltimore, Md.
- Forsyth, Bessie M., Lincoln School, 537 Bross St., Longmont, Colo.
- Forsyth, Fannie, Central School, Omaha, Nebr.
- Fort, Fred W., Wilson Ave. School, Newark, N. J.
- Foshay, Amelia, 2055 W. 24th St., Los Angeles, Calif.
- Foulks, Frank M., 404 E. Ross Ave., Tampa, Fla.
- Fowler, Olive P., R. D. No. 3, Princeton, N. J.
- Fraley, Adda L., 209 So. Washington St., Bloomington, Ind.
- Frank, Mary W., Petworth School, 1003 Otis Place, Washington, D. C.
- Frankenfield, Ira M., Calypso & Fairview School, 37 E. Union St., Bethlehem, Pa.
- Franklin, Fannie M., 2241 Sacramento St., San Francisco, Calif.
- Franz, G. F., Highlands School, 2344 Clifton Ave., Cincinnati, Ohio.
- Fraser, Isabelle J., 533 Hanover St., Fall River, Mass.
- Fredennick, Emma, Westmont Grade School, 1121 Franklin St., Johnstown, Pa.
- Freeborn, Della E., Rozelle School, East Cleveland, Ohio.
- Freed, H. E., 1209 Herbert St., Philadelphia, Pa.
- Freel, A. O., Hudson School, 1042 Cleveland Ave., Portland, Oregon.
- Freeman, Elijah, School 4, E. D. 21, P. O. Box 487, Hagerstown, Md.
- French, Mrs. Jennie M., Point Defiance School, Tacoma, Wash.
- Frew, Margaret A., Thomas Wightman School, 6540 Darlington Rd., Pittsburgh, Pa.
- Fritzson, Edith L., Willard School, 1401 W. 2d St., Oklahoma City, Okla.
- Fromhertz, Rozalee, Box 785, Miami, Ariz.
- Frost, Grace E., Longfellow School, 31 Buckingham Apts., Salt Lake City, Utah.
- Fry, Chas. A., Sunnyside School, 595 E. 40th St., No., Portland, Oregon.
- Fugate, Edwin L., Jr., Whittier School, 329 Hansberry St., Germantown, Philadelphia, Pa.
- Fuhrman, Mrs. Mabel E., Washington School, 2415 6th Ave., Moline, Ill.
- Fuller, Ada, Walker School, 428 Lafayette Ave., Grand Rapids, Mich.
- Fuller, Althea, 830 Green St., Cumberland, Md.
- Fulton Mrs. T. N., 205 Oak St., Decatur, Ga.
- Gaffney, James T., Farren School, 5030 Wabash Ave., Chicago, Ill.
- Gallan, Mrs. Marguerite K., Maple Ave. School, Barrington, R. I.
- Galleher, Lillian G., Principal, East Ward School, 1321 Seventh Ave., Scottsbluff, Nebr.



- Gallimore, Frances, Santa Clara School, 1500 The Alameda, San Jose, Calif.
- Gallup, Jackson, School No. 18, Rochester, N. Y.
- Galvin, Cecilia, 836 N. Rural St., Indianapolis, Ind.
- Galvin, Sadie M., Washington School, 326 Buckeye St., Toledo, Ohio.
- Gamble, Leo M., The Palms School, 2519 1/2 West Blvd., Los Angeles, Calif.
- Gardner, Elizabeth M., 515 El Centro St., South Pasadena, Calif.
- Gardner, Emma J., Bartlett Ave. School, 678 Wilson St., Milwaukee, Wis.
- Gardner, Mrs. Harry L., West Ave. School, 23 Genesee Apts., Lockport, N. Y.
- Gartenback, Margaret, 3156 So. Morgan Ford Rd., St. Louis, Mo.
- Garthe, Martha, Oliver H. Perry School No. 92, 709 Newington Ave., Baltimore, Md.
- Garland, Emma L., Thompson St. School, New Bedford, Mass.
- Garver, Francis M., 3440 Walnut St., Philadelphia, Pa.
- Gary, T. J., Buchman School, 587 E. Oak St., Portland, Ore.
- Gast, Ira M., Public School No. 8, 639 Bergen Ave., Jersey City, N. J.
- Gates, Rosalind, Atwater Ave. School, 1919 Cerro Gordo St., Los Angeles, Calif.
- Gault, John, 709 Pine St., Manchester, N. H.
- Gay, Mrs. Clara, 1609 Plainfield Ave., Grand Rapids, Mich.
- Gedney, Miss A., Madison School, 1584 Lakeland Ave., Lakewood, Ohio.
- Gee, Etta Q., Plaza Hotel, Chicago, Ill.
- Geiss, Newton W., Supervising Principal, High School, Oley, Pa.
- George, Almira, 850 Central Bldg., Seattle, Wash.
- George, Edna, Terminal School, 1409 W. 37th Dr., Los Angeles, Calif.
- Gerhart, Myrtle L., 1212 Armour Blvd., Kansas City, Mo.
- Gernon, Mary E., 22 S. 13th Ave., Mt. Vernon, N. Y.
- Getz, Keturah C., 1306 W. 9th St., Los Angeles, Calif.
- Gibson, C. E., Ravenna School, Seattle, Wash.
- Gifen, Mrs. Sallie, 304 Bedford St., Cumberland, Md.
- Gifford, Annie L., Longfellow School, Seattle, Wash.
- Gilbert, O. G., Dover St. School, 517 Dakota St., Milwaukee, Wis.
- Gilkey, M. Katherine, Agassiz School, 3733 Elliot Ave., Minneapolis, Minn.
- Gill, Margaret L., Edwin H. Fidler School, 17 W. Phil-Ellena St., Philadelphia, Pa.
- Gilland, Thomas M., Supt. of Schools, Donora, Pa.
- Gillen, Mary A., Public School No. 12, 123 Adelphi St., Brooklyn, N. Y.
- Gillett, Harry O., 7219 Paxton Ave., Chicago, Ill.
- Gilliam, M. J., Waring School, 2841 Laclede Ave., St. Louis, Mo.
- Gillis, Kate, 1001 Alston Ave., Fort Worth, Tex.
- Gilmore, Angela, Berkeley School, 2938 Humboldt St., Denver, Colo.
- Gilmore, Edith M., Haight School, 2877 Folsom St., San Francisco, Calif.
- Gilnock, Clara S., Nishuane School, 299 Orange Rd., Montclair, N. J.
- Gilpatrick, Mabel E., 4051 N. Kostner Ave., Chicago, Ill.
- Gingvich, William F., Jos. E. Gary School, 4545 N. Campbell Ave., Chicago, Ill.
- Ginty, Clara W., Lapham School, 112 E. Dayton St., Madison, Wis.
- Gish, Elizabeth, Frank Roane School, 2450 Rivermont Ave., Lynchburg, Va.
- Gist, Arthur S., B. F. Day School, Seattle, Wash.
- Given, Margaret E., Lewis & Winslow Schools, 29 Locust St., Everett, Mass.
- Gladfelter, Howard B., Manayunk School, Green Lane below Silverwood St., Philadelphia, Pa.
- Glaspie, Esther B., R. D. No. 2, Allendale, N. J.
- Glasscock, Sallie, Fletcher School, 1139 Broadway, Beaumont, Tex.
- Gleeson, Jennie A., 8304 Hough Ave., Cleveland, Ohio.
- Glenn, Fannie S., 653 Euclaire Ave., Bexley, Columbus, Ohio.
- Glover, Mrs. Ethel Peters, John Fremont School, 236 Belmont Ave., Long Beach, Calif.
- Goddard, Miss Io, Washington School, 318 7th Ave., South East, Aberdeen, S. D.
- Godsman, Charlotte J., Montclair School, 13th Ave. & Quebec St., Denver, Colo.
- Goforth, Preston O., Mt. Pleasant Academy, Mt. Pleasant, S. C.
- Gogin, Mrs. Florence M., Winthrop School, 56 E. Emerson St., Melrose, Mass.
- Gohmert, Emilie G., Millam School, 303 W. Locust St., San Antonio, Texas.
- Gold, Alma R., Ashley St. School, 7 West School St., Westfield, Mass.
- Good, Ida, Troost School, 60th & Forest Sts., Kansas City, Mo.
- Good, S. V., Garvanza School, 300 W. Ave. 62, Los Angeles, Calif.
- Goodspeed, David H., Wollastan & Mass. Fields School, Quincy, Mass.
- Goodwin, A. J., Hiawatha School, Hiawatha, Utah.
- Goodykoontz, Bess, c/o Board of Education, Green Bay, Wis.
- Gorbutt, Catherine, Aoy School, El Paso, Tex.
- Gordon, Grant W., 2275 La Motte Ave., Detroit, Mich.
- Gore, M. Florence, Corcoran School, 2142 K St., N. W., Washington, D. C.
- Gorham, Mary E., Teachers Training School, 523 Brandywine Ave., Schenectady, N. Y.
- Gorman, Mary, Hendricks School, St. Paul, Minn.
- Goss, Mrs. Josephine, Sigsbee School, 21 N. Union Ave., Grand Rapids, Mich.
- Grab, Frank M., Star Route No. 2, Tomahawk, Wis.
- Grady, Annie, Franklin School, El Paso, Tex.
- Grafton, Elizabeth M., High St. School, R. 1, Barborton, Ohio.
- Graham, John H., Putnam School, 35 Trowbridge St., Cambridge, Mass.
- Graham, J. W., Madrona School, 2107 E. 54th St., Seattle, Wash.
- Graham, Minnie S., DeWitt Clinton School, 15 Union Ave., Mt. Vernon, N. Y.
- Grassmuck, Erna, State Dept. of Pub. Instr., Harrisburg, Pa.
- Graves, Mary E., Ketcham-Van Buren School, 107 7th St., S. E., Washington, D. C.
- Gray, Chas. C., Emerson School, Seattle, Wash.
- Greeley, Royden K., Central School, 13 Glover Place, Middletown, Conn.
- Green, Emily A., El Mara 12 School, Magle Ave., Elizabeth, N. J.
- Green, G. H., Lowell School, 6189 Kingsbury Blvd., St. Louis, Mo.
- Green, Nell V., 410 E. 20th St., Indianapolis, Ind.
- Greenberg, Benjamin B., P. S. 11 Manhattan, 314 W. 17th St., New York, N. Y.
- Greening, Florence, Burroughs School, 320 Islington St., Toledo, Ohio.

- Greenlaw, Evelyn A., Cove & Prospect School, 27 Conant St., Beverly, Mass.
- Greenman, Gladys M., Washburn School, Duluth, Minn.
- Greer, Loula, 951 Washington Blvd., Beaumont, Tex.
- Gregory, Lydia E., Brown School, 1210 6th Ave., Rockford, Ill.
- Gridley, H. N., Lowell School, 5127 Wildwood Ave., Seattle, Wash.
- Griffin, Ella M., Lincoln School, 816 W. 9th St., Sioux Falls, S. D.
- Griffin, Mamie, Leath Orphanage, Memphis, Tenn.
- Griffin, Margery M., 4045 McPherson, St. Louis, Mo.
- Griffin, Mary Edwards, Lowell School, 27 & Madison Sts., Kansas City, Mo.
- Griffiths, May, Clay School, 1011 Oakdale Drive, Fort Wayne, Ind.
- Griggs, O. C., Whittier School, 43 N. Wheeling St., Tulsa, Okla.
- Grimes, Lucy Adella, 2129 Scudder St., St. Paul, Minn.
- Grindstuen, Iver I., Supt. or Supervising Principal, Belfield, N. D.
- Griswell, Lydia A., 47 Winona Ave., Norwood, Pa.
- Groff, Maude F., Spring St. School, Columbus, Ohio.
- Gross, Frances, Saratoga School, Omaha, Nebr.
- Gross, James E., Towamencin School, Kulpsville, Pa.
- Grout, D. A., 1625 E. Main St., Portland, Oregon.
- Grover, Helen M., Box 113, Jay, Maine.
- Grubbs, W. B., 759 W. 25th St., Indianapolis, Ind.
- Grunder, Anna, J. B. Atkinson School, Louisville, Ky.
- Gullette, Albert, 2522 Filmore St., N. E., Minneapolis, Minn.
- Guthrie, Mary G., Gale School, 500 Diversey Parkway, Chicago, Ill.
- Haberfelde, Pearl, Worth St. School, Box 2615, Taft, Calif.
- Hager, E. R., Asa Messer School, 123 Elmwood Ave., Providence, R. I.
- Hague, Edith McGrew, Columbus Normal School, 1470 Fair Ave., Columbus, Ohio.
- Hahn, Mrs. Alta M., Washington School, 1514 So. Rush St., South Bend, Ind.
- Hahn, William H., 38th St. School, 484 38th St., Milwaukee, Wis.
- Haines, Elizabeth, Drummond School, 5349 Sheridan Rd., Chicago, Ill.
- Hall, Arthur C., Monroe & Van Buren School, 115 W. 6th St., Davenport, Iowa.
- Hall, George F., Grantwood, N. J.
- Hall, J. O., Holladay School, 1436 E. Glisan, Portland, Oregon.
- Halterman, Allie, 110 S. Kanawha St., Buckhannon, W. Va.
- Hamilton, Isabelle, 121 Galena St., Lead, S. D.
- Hamilton, Kate, Columbia School, Hammond, Ind.
- Hamilton, Margaret, Central Park School, 519 North 40th St., Omaha, Nebr.
- Hamilton, Nettie J., School No. 21, Colvin St., Rochester, N. Y.
- Hamm, Franklin P., Waverly Ave. School, Newark, N. J.
- Hammond, Gertrude B., Hyde Park School, Box 228, Hyde Park, Los Angeles, Calif.
- Hanlon, Harriet, 687 So. Burlington, Los Angeles, Calif.
- Hanlon, Marcella R., 5421 Carpenter St., Chicago, Ill.
- Hanna, Mrs. Blanche E., Duniway School, Portland, Oregon.
- Hannum, Mrs. Anna B., Eugene Field School, Sedalia, Mo.
- Hanselman, C. F., Washburn School, Clinton & Linn, Cincinnati, Ohio.
- Hansen, Herbert C., Talcott School, 1045 N. Lockwood Ave., Chicago, Ill.
- Hanson, F. H., Barnet School, 141 Heller Parkway, Newark, N. J.
- Hanson, Theodore, 320 Walsh St., Grand Forks, N. D.
- Harbo, Rolf T., Supt. of Schools, Buffalo, N. D.
- Harding, Elizabeth G., Hardie School, 23 Essex St., Beverly, Mass.
- Harding, Ernest A., Peapock-Gladstone School, Gladstone, N. J.
- Harger, Lena L., Sidney Pratt School, 4235 Grimes Ave., So., Minneapolis, Minn.
- Hargrove, William B., Berkeley School, 39 Charles St., Bloomfield, N. J.
- Harker, Sara D., Lower, Miss Harker's School, Palo Alto, Calif.
- Harney, Margaret A., School 218, Howard Park, Baltimore, Md.
- Harper, Thomas B., 500 Sixth Ave., Belmar, N. J.
- Harris, Elizabeth S., Public School 65, 46 Forsyth St., Manhattan, N. Y.
- Harrison, Ford O., Wells School, 711 Maryland Ave., S. W., Canton, Ohio.
- Harrison, Lucretia, South School, 813 So. 6th St., Lyons, Iowa.
- Harrower, W. J., 413 E. 60th St., Chicago, Ill.
- Hart, Emma C., Whitworth School, 626 13th St., North, Seattle, Wash.
- Hart, Harry T., Hart & Stevens Schools, 26 W. Henry St., Stamford, Conn.
- Hart, Helen A., Chase School, Toledo, Ohio.
- Hart, Ida M., Hoffman School, 5720 Thomas Ave., Philadelphia, Pa.
- Hart, John C., 538 Carey Ave., Wilkes-Barre, Pa.
- Hart, Pauline, Golden Gate School, 1804 Leavenworth St., San Francisco, Calif.
- Hartwell, Mildred M., Chapman St. School, Greenfield, Mass.
- Harvey, Mrs. Cora, Alexander School, 227 Henry Ave., Grand Rapids, Mich.
- Harvey, Lida E., Van Horn School, 37th & Terrace, Kansas City, Mo.
- Harwell, C. A., Emerson School, 1360 B. Scenic Ave., Berkeley, Calif.
- Hassell, T. C., Fair Park School, 4714 Reiger, Dallas, Tex.
- Hatch, Bertha C., Gooch School, 34 E. Emerson St., Melrose, Mass.
- Hatch, Henry D., 1540 East Marquette School, Chicago, Ill.
- Hatfield, Walter R., 6030 Kenwood Ave., Chicago, Ill.
- Hauch, Jacob H., Lloyd School, Chicago, Ill.; 835 Wenonah Ave., Oak Park, Ill.
- Hauer, J. S., Sixth District School, Cincinnati, Ohio.
- Haukenberry, Ada, Stockdale School, 911 North 11th St., Manhattan, Kans.
- Haulbrook, Hallie, First Ward School, 502 N. Main St., Moultrie, Ga.
- Hazard, Ann, Noftsgar Hill & Central School, Globe, Ariz.
- Hazard, George Nathan, School St. School, Box 89, Middleboro, Mass.
- Hazen, Mary C., P. S. 18, 8 Highland Ave., Yonkers, N. Y.
- Heard, Mrs. Minnie T., Supervisor of Grade Schools, Dothan, Ala.
- Hearne, Clara, Public Schools, Roanoke Rapids, N. C.
- Heath, Byron H., School No. 8, 185 E. Utica St., Buffalo, N. Y.
- Heath, Virginia, Redding School, 2374 Pacific Ave., San Francisco, Calif.
- Hebal, E. L., 219 N. Grove Ave., Oak Park, Ill.
- Heermans, Martha, Principal of Schools, Hayden, Ariz.

- Hefflon, Mrs. Bertha S., Highland School, 51 Myrtle Terrace, Winchester, Mass.
- Heidler, Samuel H., Converse School, 933 So. 5th St., Springfield, Ill.
- Hellman, Mrs. Belle C., Oceanside Grammar School, San Diego, Calif.
- Hein, Henry E., P. S. 40, Bronx, 1385 Prospect Ave., New York, N. Y.
- Heiser, Bess M., Hawthorne School, 614 Grafton Ave., Dayton, Ohio.
- Heisser, Della B., 420 Crane Ave., Turlock, Calif.
- Heilberg, Charles F., Corcoran School, 523 W. 50th St., Minneapolis, Minn.
- Helms, W. T., Supt. of Schools, Richmond, Calif.
- Henderson, Grace H., Caryl School, Dover, Mass.
- Henderson, Margaret B., San Jacinto School, 3821 Ross Ave., Dallas, Tex.
- Hendrickson, Caroline, Haworth School, Haworth, N. J.
- Hendryx, Luella T., Barr School, 524 So. 7th St., Escanaba, Mich.
- Henthorn, E. C., Supt. of Schools, Stockham, Nebr.
- Herchenroder, Clara, Owen School, St. Joseph, Mo.
- Herman, Irene E., 415 South St., Woodstock, Ill.
- Hern, Angie K., 1868 Ashland Ave., St. Paul, Minn.
- Herrick, Hattie L., John Nelson School, 720 Second Ave., Rockford, Ill.
- Herrig, Isabella W., John Moore School, 822 Adams St., Saginaw, W. S., Mich.
- Hess, Walter L., Waterford Vocational School, Waterford, Pa.
- Hesselbaum, Caroline, Illinois Ave. School, 158 S. River St., Aurora, Ill.
- Hester, W. E., Union High School, Alturas, Calif.
- Heuermann, Minna S., Schley School, 1240 N. Oakley Blvd., Chicago, Ill.
- Hicken, Blanche E., Brown & Remmon Schools, W. Salmon St., Manchester, N. H.
- Hickey, Margaret, South Broad St. School, 35 Goodwill Ave., Meriden, Conn.
- Hicks, Edith M., Lewis School, 479 Chestnut St., East Lynn, Mass.
- Higbee, R. C., Webster School, St. Paul, Minn.
- Higgins, Gertrude, Alamo School, 1015 N. Florence St., El Paso, Tex.
- Higgins, T. J., Canterbury St. School, 29 Stoneland Rd., Worcester, Mass.
- Hill, E. C., Beacon Hill School, Seattle, Wash.
- Hill, Edith, Horace Mann School, 21 The Roanoke, Clifton, Cincinnati, Ohio.
- Hill, Ella, Caledonia School, East Cleveland, Ohio.
- Hill, Margaret C., 27 Claremont Ave., Jersey City, N. J.
- Hill, Thomas Crawford, Christian Fenger High & Curtis Elementary Schools, State & 115 St., Chicago, Ill.
- Hillhouse, Nellie W., Lykins School, 7th & Norton, Kansas City, Mo.
- Hillman, Miss J. C., Laguna Honda School, 417 Stockton St., San Francisco, Calif.
- Hinckley, C. G., Newaygo, Mich.
- Hinden, Charlotte D., Liberty School, Canton, Ohio.
- Hinds, Marian, 537 Teller Ave., Grand Junction, Colo.
- Hine, Edith M., 17 Cook St., Tarrington, Conn.
- Hinson, Addie, 209 Central Ave., Charlotte, N. C.
- Hodgkins, George W., 1821 Kalorama Rd., Washington, D. C.
- Hogan, John J., John R. Rollins School, Lawrence, Mass.
- Hoke, Verna M., Glen Park School, Gary, Ind.
- Holbrook, Florence, 4429 Greenwood Ave., Chicago, Ill.
- Holcomb, A. H., 1136 9th St., W., Birmingham, Ala.
- Holgersen, Anne M., Hawthorne School, 1717 Orange St., Bakersfield, Calif.
- Holloway, Maggie E., Fuller School, 411 Cleveland, Durham, N. C.
- Holley, Jennie S., 53 School St., Lancaster, N. Y.
- Holman, Carl, Supervising Principal, Pearl River, N. Y.
- Holmes, Lindsley R., Lincoln Jr. High School, 1604 Iowa St., Cedar Falls, Iowa.
- Holmes, Mary E., School No. 55, Chestnut Ave. & 37 St., Baltimore, Md.
- Holt, Mrs. Flora M., Auburn, Wash.
- Holtzapple, Lillie, Central School, Flat River, Mo.
- Holway, Nellie E., Weston Ave. School, Rowell St., Madison, Maine.
- Hood, W. F., Lincoln School, 1813 W. Sixth St., Racine, Wis.
- Hooe, Dodie, 4322 Junius St., Dallas, Tex.
- Hooker, Minnie L., Bristol School, 15th & Hedges, R. F. D. No. 6, Independence, Mo.
- Hoole, Patricia, Roosevelt School, West Allis, Wis.
- Hoover, Harriet M., Adams School, 1417 E. 3d St., Duluth, Minn.
- Hopkins, Amella M., Lincoln School, 561 Chrysler Ave., Schenectady, N. Y.
- Hopkins, C. G., 5139 Alverne Ave., Eagle Rock, Calif.
- Hopkins, Carleton R., 2937 Carman St., Camden, N. J.
- Horn, A. P., School No. 15, 262 Clinton Place, Hackensack, N. J.
- Horn, Ernest, State University of Iowa, Iowa City, Iowa.
- Horrall, Pansy, Whittier School, Spokane, Wash.
- Hosic, James F., Teachers College, Columbia University, New York, N. Y.
- Howard, Mrs. Lily, Lincoln Park School, 131 Newman St., El Paso, Texas.
- Howard, Lowry S., 1374 Palm Terrace, Pasadena, Calif.
- Howlett, Mary E., Tod School, 12752 Cedar Rd., Cleveland, Ohio.
- Hoymann, W. H., Supt. of Schools, Toledo, Iowa.
- Hoxie, Dorothea M., Hope School, Phenix, R. I.
- Hubbard, Mrs. Emma, 194 South Ave., Battle Creek, Mich.
- Huber, J. Edward, Monroe School, 1450 Norwood St., Chicago, Ill.
- Huddle, Otto E., Briarcliff Manor, N. Y.
- Huebner, Elsa, Clemens Vonnegut School, 2406 N. Pennsylvania, Indianapolis, Ind.
- Huff, William F., Luther Burbank School, 3030 Vista St., Long Beach, Calif.
- Hughes, R. L., 5417 Ingleside, Chicago, Ill.
- Hughes, W. F., San Pedro St. School, Los Angeles, Calif.
- Hull, Annie E., Fifth Ave. School, 404 W. 8th Ave., Columbus, Ohio.
- Hull, Bruce H., East Hill School, 1415 Pine St., The Dalles, Ore.
- Humphrey, C. F., Rochelle, Ill.
- Hunt, Abigail M., 5425 Dorchester Ave., Chicago, Ill.
- Hunt, R. C., Supt. of Schools, Howard, Kansas.
- Hunter, Adda Wilson, Custer Ave. School, 911 No. Mariposa Ave., Los Angeles, Calif.
- Hurley, Katherine M. E., 1335 Robeson St., Fall River, Mass.



- Huston, Alice L., Lawrence School, 118 S. Graham St., Pittsburgh, Pa.  
 Hutchings, Raymond R., Franklin School, University Club, Santa Barbara, Calif.  
 Hutchins, Eva, Gladstone School, Cleveland, Ohio.  
 Hutchison, C. Ellen, Cordova, Md.  
 Hyman, Bertha, 338 E. 67th St., New York N. Y.
- Ide, Nellie T., 4642 Penn St., Frankfort, Philadelphia, Pa.  
 Imrie, Margaret B., Nathan Hale School No. 4, 12 Cedar St., Bronxville, N. Y.  
 Ireland, Isabel, Jr. High School, 806 Green St., Cumberland, Md.  
 Ironside, Mrs. Mary E., Oak St. School, Derry, N. H.  
 Irvin, Miss M. Hunter, Lindsay St. School, Greensboro, N. C.  
 Irwin, Kathryn, Primary School, Pittsburg, Calif.  
 Isle, W. W., Supt. of Schools, Clinton, Okla.
- Jack, Mary, Coventry School, Cleveland Heights, Ohio.  
 Jackson, Jennie, 601 Gandy, Denison, Tex.  
 Jackson, Jessie, Roosevelt School, 529 Mahoning Ave., Warren, Ohio.  
 Jackson, Robert C., Bowie School, El Paso, Tex.  
 Jackson, W. E., 820 W. Montgomery Ave., Spokane, Wash.  
 Jacobs, R. C. T., Roberts School, 915 Parkview Ave., Dallas, Tex.  
 Jaeger, Ida L., Lincoln School, 2324 Larabee St., Chicago, Ill.  
 Jahn, Anna M., Gibbs School, 1222 Sharb Ave., N. W., Canton, Ohio.  
 Jamieson, C. M., 5010 N. Winchester Ave., Chicago, Ill.  
 Jamieson, Marian M., 5010 N. Winchester Ave., Chicago, Ill.  
 Jamieson, Minnie M., L. A. Budlong, 5010 N. Winchester Ave., Chicago, Ill.  
 Jamison, Rachel H., Trinity St. School, 422 N. Vermont Ave., Los Angeles, Calif.  
 Janes, Hattie E., Berton Einstein School, 2439 Mariposa St., Fresno, Calif.  
 Jansen, William, Public School 9, Bronx, 481 E. 138th St., New York, N. Y.  
 Japzon, Manuel I., Oras, Samar, P. I.  
 Jarvis, Arthur C., Branch High School, Dailey, Colo.  
 Jasperson, Lillian, Brayton School, Madison, Wis.  
 Jeffards, Alice L., Plymouth Normal School, Plymouth, N. H.  
 Jeffcott, Kate L., Gwynne Institute, 728 Anderson Ave., Fort Myers, Fla.  
 Jefferson, Carl T., Jefferson Park Grade School, Dist. 82, P. O. Box 117, El Paso, Ill.  
 Jeffrey, Robert G., Sawyer Ave. School, 6921 So. Sangamon Ave., Chicago, Ill.  
 Jenkins, Albion U., School No. 12, Paterson, N. J.  
 Jenner, F. M., Whitney School No. 17, Orange & Saxton Sts., Rochester, N. Y.  
 Jennings, Egbert, Supt. of Schools, Box 726, Kennett, Mo.  
 Jenny, Charles A., Lincoln School, Brockton, Mass.  
 Jensen, Elsie M., 341 Myrtle St., Glendale, Calif.  
 Johns, Katherine T., 820 Connecticut St., Gary, Ind.  
 Johnson, Harold B., 1926 Ave. H., Birmingham, Ala.  
 Johnson, Harriet S., Indiana School, 1718 Washington St., Toledo, Ohio.  
 Johnson, Isora, Grade Bldg., Brighton, Colo.
- Johnson, Jennie U., 1676 Van Buren St., St. Paul, Minn.  
 Johnson, John A., 1352 East 48th St., Chicago, Ill.  
 Johnson, Lula, James L. Key School, Capitol Ave., Atlanta, Ga.  
 Johnson, Maude, 406 Kishwaukee St., Rockford, Ill.  
 Johnson, Minnie A., 13 Atlantic Ave., Beverly, Mass.  
 Johnson, Sara G., Rand School, Montclair, N. J.  
 Johnson, Silvia, Mountain, N. D.  
 Johnson, T., Public School 11, Queens, 17 Third St., Woodside, N. Y.  
 Johnson, Thomas C., 4540 N. Hamlin Ave., Chicago, Ill.  
 Johnson, W. H. Manchester School, 15th & Winchester Sts., Kansas City, Mo.  
 Johnston, Ida Estelle, Mills St. School, 40 Mills St., Morristown, N. J.  
 Johnston, J. B., Oyler School, Cincinnati, Ohio.  
 Johnston, Kathryn, Box 738, Helena, Mont.  
 Johnston, Laura A., Waring School, Cleveland, Ohio.  
 Johnston, Sara W., Maple Ave. School, Niagara Falls, N. Y.  
 Jones, Etta, Finney School, 1044 Fairmount St., Grand Rapids, Mich.  
 Jones, Harriet M., Crouse School, 21 So. Walnut St., Akron, Ohio.  
 Jones, May E., Thos. Jefferson School, Louisville, Ky.  
 Jordan, Adelaide E., McPherson School, 4606 N. Racine Ave., Chicago, Ill.  
 Jordan, W. Lee, 2830 Battleboro St., Des Moines, Iowa.  
 Jordt, Elsie B., Robert B. Green School, 520 San Pedro Ave., San Antonio, Tex.  
 Jorgenson, E., Werner Consolidated School, Werner, N. D.  
 Jourdan, Caroline C., B. Jepson School, New Haven, Conn.  
 Joy, Barbara B., Wilson Grammar School, 481 Hanover, Manchester, N. H.  
 Joy, Helena E., Ingraham Hotel, Los Angeles, Calif.  
 Joyce, Charles W., 98 Pearl St., Rochester, N. Y.  
 Judd, Anne D., Medary Ave. School, Columbus, Ohio.  
 Judd, Harriet A., West Broad St. School, Columbus, Ohio.  
 Jung, Elizabeth, Southwood School, 97 E. Lane Ave., Columbus, Ohio.  
 Jupp, Estelle S., Washington School, Rutherford, N. J.
- Kaefer, William, Raschig School, Elm & Canal, Cincinnati, Ohio.  
 Kahl, Henry, Madison St. School, Cor. 5th Ave., Milwaukee, Wis.  
 Kahler, Florence, R. R. No. 4, Shiveley, Ky.  
 Kaross, Ella B., Fratney St. School, 141 Heller Parkway, Milwaukee, Wis.  
 Keck, Christine, 1842 Sherman St., Grand Rapids, Mich.  
 Keefer, Miss A. F., DeConte School, 218 El Granada Apts., Berkeley, Calif.  
 Keeler, Lewis, Supt. of Schools, Mound City, Kans.  
 Kell, Herbert, West Jefferson, Ohio.  
 Keller, Elizabeth N., University Park School, 1540 Grant St., Denver, Colo.  
 Kelley, E. W., William Cullen Bryant School, Seattle, Wash.  
 Kellum, M. Effie, Allen School, 814 W. Washtenaw, Lansing, Mich.  
 Kelly, J. F., Fannin School, 2628 Ross Ave., Dallas, Tex.  
 Kelly, Ruth Bryan, West Creek School, West Creek, Ocean County, N. J.  
 Kemp, J. F., Supt. of Schools, Box 626, Seymour, Tex.



- Kemp, Mary, Your Teacher School, Mitchellville, Md.
- Kemper, Elizabeth R., Longfellow School, Salem & Superior Ave., Dayton, Ohio.
- Kemper, L. L., 109 E. 8th St., Mishawaka, Ind.
- Kennedy, Mrs. Bertha S., Principal, Elementary Schools, 303 N. Leroux St., Flagstaff, Ariz.
- Kennedy, Ella F., 741 Hague Ave., St. Paul, Minn.
- Kenney, Jennie H., Wash. Ave. School, Roswell, N. M.
- Kenney, Thomas, Garfield Ave. School, 808 Burling St., Milwaukee Wis.
- Kensinger, Floy, Nettleton School, 4316 Laverne St., Duluth, Minn.
- Kepner, F. B., Whitman School, Tacoma, Wash.
- Kerlin, Nellie R., 211 49th St., Newport News, Va.
- Kernan, Katherine, Morningside School, 5545 Jackson St., Pittsburgh, Pa.
- Kessler, Jacob A., Supt. Consolidated Dist. School No. 3, R. F. D. No. 3, Clifton Hill, Mo.
- Ketner, Sarah P., 2817 Kearney St., Denver, Colo.
- Kincald, Stella M., 91 Forest Ave., Glen Ridge, N. J.
- King, Helen M., Supervising Principal, 8 Walker St., Portland, Maine.
- King, Margaret M., Whittier School, 842 Laurel Ave., St. Paul, Minn.
- King, Metella, 807 L St., N. W., Washington, D. C.
- King, William A., Concord School, Seattle, Wash.
- Kinnie, Martha B., 817 Bruce St., Rockford, Ill.
- Kirby, Elizabeth, 660 E. 17th St., Indianapolis, Ind.
- Kirk, A. W., Jackson School, St. Paul, Minn.
- Kirk, Nellie, School No. 49, 250 Starlin Ave., Buffalo, N. Y.
- Kirkley, Sarah A., Ryerson School, 2216 Warren Ave., Chicago, Ill.
- Kirschman, Mrs. Winifred A., 22 Terrace Ave., Battle Creek, Mich.
- Kiser, J. L., High School, Hickory, N. C.
- Kitch, R. L., Hawthorne School, 917 Virginia St., Sioux City, Iowa.
- Klaus, Bertha J., Michelangelo School, 240 Downey St., San Francisco, Calif.
- Kline, Aaron, Drake School, 2641 Calumet Ave., Chicago, Ill.
- Kling, M. J., Supervising Principal, 1512 Jacob St., Troy, N. Y.
- Kneip, Augusta, Midland School, 632 N. Nevada, Colorado Springs, Colo.
- Knight, A. S., 202 Valley Rd., Montclair, N. J.
- Knight, Nellie D., Huck St. School, Cleveland, Ohio.
- Kniseley, J. N., Green Lake School, Seattle, Wash.
- Knoch, E. H., Hazelwood School, 2825 Espy Ave., Dormont, Pittsburgh, Pa.
- Knochnizen, Marguerite, Coit School, Grand Rapids, Mich.
- Knuth, Mamie E., South Case School, Cleveland, Ohio.
- Knutson, K. J., T. T. Minor School, Seattle, Wash.
- Kober, Marie, Garfield School, Mason City, Iowa.
- Koerner, Grace E., Seth Boyden School, 122 Milligan Pl., South Orange, N. J.
- Kolbe, Bertha M., Miles Park School, Cleveland, Ohio.
- Kottinger, E. W., Durant School, 1526 Webster St., Oakland, Calif.
- Kottke, George G., Supt. of Schools, Windom, Minn.
- Kottnauer, Annette, Walker St. School, 1227 Wright St., Milwaukee, Wis.
- Krauss, Luise H., Graton School, 115 Palm Ave., San Francisco, Calif.
- Kriesel, Capt. C. A., Windlake Ave. School, 230 26th St., Milwaukee, Wis.
- Kroening, Frank, Scott St. School, 1140 National Ave., Milwaukee, Wis.
- Krueck, Josephine, N. Fairmount School, Baltimore Ave., Cincinnati, Ohio.
- Kruse, Edwina B., School No. 5, 1213 Walnut St., Wilmington, Del.
- Kuehn, Nita E., 2708 Clark Ave., Cleveland, Ohio.
- Kunerth, Mrs. Ethel M., Fairmount & Riverside School, Duluth, Minn.
- Kurtz, Elizabeth H., R. D. Wood School, 120 Mulberry St., Milville, N. J.
- Kusche, Anna E., Franklin School, 166 Waugoo St., Oshkosh, Wis.
- Kuska, H., Supt. of Schools, Echo, Oregon.
- Kuykendall, Mrs. Karl, Broadway Elementary School, Providence, Ky.
- Kyte, George C., Associate Prof. of Education, Washington University, St. Louis, Mo.
- Lafferty, Annie L., Sunnyside School, McCandless Ave. & 56th St., Pittsburgh, Pa.
- Lahay, Mary T., Hunters Point School, San Francisco, Calif.
- Laing, Earl R., Redford, Mich.
- Laing, Lucy I., Bass School, 5528 Blackstone Ave., Chicago, Ill.
- Lamson, Gertrude, 75 Woolnough Ave., Battle Creek, Mich.
- Landis, Mrs. Francis, Merrill School, Memphis, Tenn.
- Landsman, Chas. M., P. S. 139, Cortelyou Rd. & E. 13th St., Brooklyn, N. Y.
- Lane, Abby E., Carter Practice School, 6215 University Ave., Chicago, Ill.
- Lane, F. J. 5323 Dorchester Ave., Chicago, Ill.
- Lang, C. E., Keith School, 3400 S. Dearborn, Chicago, Ill.
- Lang, Katherine, Denison School, Cleveland, Ohio.
- Langley, Edna J., Springfield School, 2801 Troost, Kansas City, Mo.
- Lantrip, Dora B., 4309 Willmer St., Houston, Tex.
- Larkin, Jane V., Gordon School, Dayton & Fry, St. Paul, Minn.
- Larrabee, Emma D., F. A. McDonald School, 1630 Boylston Ave., Seattle, Wash.
- Larsen, Lillian M., Garfield School, 491 Barrett Ave., Elgin, Ill.
- La Vance, Laura F., School No. 8, Delawanna, N. J.
- Law, Aura, Hill School, Punxsutawney, Pa.
- Lawlor, Edward A., John R. Rollins School, 24 Winthrop Ave., Lawrence, Mass.
- Layland, Ethel E., 1618 W. 1st Ave., Columbus, Ohio.
- Layman, R. E., High School, Port Republic, Va.
- Lea, Ada, Red Bank School, Route No. 5, N. Chattanooga, Tenn.
- Lea, Mrs. Aletta B., Franklin School, 1428 E. St., Eureka, Calif.
- Lee, Ethel M., 451 Trenton Ave., Camden, N. J.
- Lee, Ruby, School No. 36, 1635 N. Meridian, Indianapolis, Ind.
- Leebrick, Mary G., 302 Garfield St., Burlington, Iowa.
- Leete, Mrs. Maggie P., Bigley School, 1111 Crescent Rd., Charleston, W. Va.
- Ledy, Mrs. Emma B., Warren School, 7 Scottwood Apts., Toledo, Ohio.
- Leistikow, Lydia, Adams Garfield School, 411 Sixth Ave., S. E., Aberdeen, S. D.

- Lemon, Mrs. Kate, 319 E. Nelson St., Cadillac, Mich.
- Lemon, Mrs. Mary E., Holman School, 208 16th St., Portland, Oregon.
- Lenvig, Bessie C., Monta Vista St. School, 214 So. Flower St., Los Angeles, Calif.
- Lewin, Harry E., High School, Box 81, Harrington, Maine.
- Lewis, Charles E., Hillsdale School, Multnomah, Oregon.
- Lewis, H. P., Supt. of Schools, Conrad, Mont.
- Lewis, John L., Raymond School, 3633 Wabash Ave., Chicago, Ill.
- Lewis, Nellie K., Washington School, 3863 Juniata, St. Louis, Mo.
- Libby, O. A., Jr. High School, 515 So. 8th St., Laramie, Wyo.
- Lichty, Elden A., Supt. Consolidated School, Osgood, Mo.
- Lightbody, W., Lillibridge School 11131 Kercheval Ave., Detroit, Mich.
- Liming, O. L., Jr. High School, 205 Kansas Ave., Holton, Kans.
- Lindquist, R. D., Thousand Oaks School, Berkeley, Calif.
- Lippincott, Mildred, Lincoln School, Box 333, Norfolk, Nebr.
- Lipscomb, Roy S., I. L. Stevens School, 18th Ave. N. & Galer St., Seattle, Wash.
- Livingston, Mary B., Smyth School, 1368 E. 54th St., Chicago, Ill.
- Lloyd, S. M., Brown School, 4300 Rose-land Ave., Dallas, Tex.
- Lochrie, Annabel, Jr. High School, Larkins, Fla.
- Lockhart, Lenora, Livingston School, Columbus, Ohio.
- Lockwood, Cora M., 147 Oregon Ave., Dundee, Ill.
- Lockwood, Jessie M., John Muir School, Seattle, Wash.
- Lockwood, Luther A., Carthage, Ind.
- Lodor, Charles F., School No. 11, Passaic, N. J.
- Loeper, Helen, 1508 N. Alabama St., Indianapolis, Ind.
- Logan, S. T., Mt. Auburn School, Cincinnati, Ohio.
- Lokes, Frank C., Robert Morris School, 1116 S. 52d St., Philadelphia, Pa.
- Loney, Maria C., School No. 20, 622 N. Franklin St., Wilmington, Del.
- Long, Edward L., Schuylerville, N. Y.
- Long, J. B., East School, 633 Washington Ave., Greenville, Ohio.
- Long, Ona, Leeds School, 36th & Gould, Kansas City, Mo.
- Longshore, W. T., Greenwood School, 27 & Cleveland, Kansas City, Mo.
- Looney, James P., 1708 Nunann St., Honolulu, T. H.
- Loucks, Mabel R., Linne School, 3933 N. Tripp Ave., Chicago, Ill.
- Loughery, Anna S., 6046 Locust St., Philadelphia, Pa.
- Louis, Hilda, School No. 21, 1724 Eutaw Place, Baltimore, Md.
- Love, Helen, Washington School, 622 W. Mountain Ave., Fort Collins, Colo.
- Love, M. Lily, Pacific Heights School, Jackson & Webster Sts., San Francisco, Calif.
- Lowe, Henry F., Lenox School, Apt. 10, 1931 17th St., N. W., Washington, D. C.
- Lowe, O. H., Sheboygan, Wis.
- Lowenstein, Fannie H., Oakdale School, 5 Walden Place, Louisville, Ky.
- Lucky, L. B., High School, Homer, La.
- Lummis, Martha B., 407 Cooper St., Camden, N. J.
- Lunak, Charles J., McLaren School, 1500 Flournoy St., Chicago, Ill.
- Luneford, Eliza D., Bluemont, Va.
- Lusk, L. Elizabeth, Hunnewell School, Hotel Waban, Wellesley, Mass.
- Lustnauer, Charles F., Md. Training School for Boys, Loch Haven, Md.
- Lutes, O. S., Supt. of Schools, Medford, Minn.
- Lutton, Louis F., 325 Grandview Ave., Pittsburgh, Pa.
- Lyford, Annie E., Columbia School, 320 Spring St., Elgin, Ill.
- Lynch, Cecilia K., Lawn School, Cleveland, Ohio.
- Lynch, John E., 9 Stoneland Rd., Worcester, Mass.
- Lynch, John J., 1158 Dwight St., Holyoke, Mass.
- Lynch, Maria, Willard School, Queen & 16th Sts., Minneapolis, Minn.
- Lyon, Bessie C., Carpenter St. School, 494 Lloyd Ave., Providence, R. I.
- Lyon, Mrs. Edith H., Noe Valley School, San Francisco, Calif.
- McBain, Lenora, 312 W. Van Buren St., Battle Creek, Mich.
- McBride, A. A., Southside School, Lafayette, La.
- McCaine, Miss A. M., 1012 4th Ave., North, Fargo, N. D.
- McCall, Frank S., Gilbert Knapp School, Racine, Wis.
- McCall, Ida G., School No. 42, 47 Manchester Pl., Buffalo, N. Y.
- McCarthy, Julia A., Winslow School, Norwood, Mass.
- McCarthy, Kate, Vernon Ave. School, 682 S. Burlington Ave., Los Angeles, Calif.
- McCarthy, Stella L., Jireh Swift School, New Bedford, Mass.
- McCaslin, E. E., 4152 Washington Blvd., St. Louis, Mo.
- McClellan, J. W., 23 Davis Ave., Rockville, Conn.
- McClellan, Mary F., Murray School, St. Paul, Minn.
- McClory, Mary C., School No. 8, Paterson, N. J.
- McClure, Adela, Central School, Hotel Wellington, Denver, Colo.
- McClure, Eliza, Montooth School, 1139 Piermont Ave., Dormont, Pittsburgh, Pa.
- McClure, Martha, Reseda, Calif.
- McClure, Mary E., McFerran School, 2313 W. Jefferson St., Louisville, Ky.
- McClure, Worth, 850 Central Bldg., Seattle, Wash., *Honorary Member.*
- McCoart, Rose L., Wooldridge School, 1710 E. 21st St., Cleveland, Ohio.
- McCollister, L. D., High School, Bastrop, La.
- McConnell, Clara E., 670 Pingree St., Detroit, Mich.
- McConnell, Mary A., State Normal School, 186 Prichard St., Fitchburg, Mass.
- McCord, Adilda, Sikeston, Mo.
- McCord, Jessie, Monteville School, 1570 E. Belmont St., Portland, Oregon.
- McCormick, Elizabeth R., Franklin Jr. High School, 329 W. Sixth St., Superior, Wis.
- McCracken, Mary, Fulton School, 11 Brush-ton Ave., Pittsburgh, Pa.
- McCreery, C. J., Davenport School, Fall River, Mass.
- McCrory, Jesse E., Supt. of Schools, Lineville, Iowa.
- McCuen, B. F., Ann Vesger School, River Rouge, Mich.
- McCullough, Mary, Bryant School, 1115 N. Central, Oklahoma City, Okla.
- McDade, James E., Wentworth School, 8108 So. Green St., Chicago, Ill.
- McDaniel, Lottie, Virginia St. School, Hopkinsville, Ky.
- McDonald, Harriet A., Ninth St. School, 617 Elk St., Franklin, Pa.
- McDonald, S. A., Ruffner Jr. High School, Norfolk, Va.

- McDonnell, Susan J., May School, 5716 W. Race Ave., Chicago, Ill.
- McEachin, Mary W., Bridge St. School, 531 N. Gramercy Pl., Los Angeles, Calif.
- McElray, Flora L., 1284 Ramona Ave., Lakewood, Ohio.
- McElvain, Margaret, 216 So. Ohio Ave., Columbus, Ohio.
- McFadden, L. E., High School, Metropolis, Nev.
- McFarlin, Clara H., Fulton School, 5300 S. Hermitage Ave., Chicago, Ill.
- McGaugh, J. H., Clifton, Ariz.
- McGee, J. S., E. M. Daggett School No. 10, 2801 Hemphill St., Fort Worth, Tex.
- McGee, R. R., Supt. of Schools, Columbus, Nebr.
- McGinness, Mrs. Venesia B., 827 Rosemont Ave., Los Angeles, Calif.
- McGinnis, James W., 6400 S. Maple, Chicago, Ill.
- McGregor, Lullie, Harrison School, Minneapolis, Minn.
- McGrew, Mrs. Julia L., M. J. Dowling School for Crippled Children, 1805 Dupont North, Minneapolis, Minn.
- McGuffin, James A., 705 Yale Ave., Fresno, Calif.
- McGuire, C. E., Jr. High School, Idabel, Okla.
- McGuire, Ira, Moreland, Kans.
- McIntyre, Ella D., Franklin School, Long Apt. 4, Fort Collins, Colo.
- McKean, Annie, Penn. School, 305 W. 5th St., Erie, Pa.
- McKebbin, May E., Logan School, 311 W. St. Joseph St., Lansing, Mich.
- McKechnie, Addie, Tapley School, 912 State St., Springfield, Mass.
- McKeehan, Chas F., Seward School, Seattle, Wash.
- McKelvie, Elizabeth J., "Brookhurst," Bedford, N. H.
- McKenzie, Mary Belle, 210 King William St., San Antonio, Tex.
- McKinney, Anna J., William McKinley School, Lawrence St. & Susquehanna Ave., Philadelphia, Pa.
- McKnight, Sue, 101 Columbia St., Cumberland, Md.
- McLatchy, Gertrude, Elyton School, Birmingham, Ala.
- McLaughlin, Caroline, High School, Cawker, Kans.
- McLaughlin Roy L., Supt. Sockanosset School for Boys, Howard, R. I.
- McLaughlin, Visa, J. A. Sexton School, 1248 Winona Ave., Chicago, Ill.
- McLean, Wm., Mt. Hebron Jr. High School, Upper Montclair, N. J.
- McMeen, Geo. M., Elmwood School, 1800 E. Arizona, Denver, Colo.
- McMichael, Miss Belle, Bromwell School, 1566 Broadway, Denver, Colo.
- McMillan, Ethel, Culbertson School, 231 East Tenth St., Oklahoma City, Okla.
- McNeil, Flora, 725 Ogden St., San Antonio, Tex.
- McNeill, Miss B., 725 Ogden St., San Antonio, Tex.
- McPherson, Harriet P., Worthington St. School, 16 Buckingham St., Springfield, Mass.
- McPherson, R. A., McKinley School 1809 17th St., Parkersburg, W. Va.
- McQuade, Katherine, Douglaston, L. I.
- McQuirk, Mary E., P. S. No. 43, Brooklyn, N. Y.
- McReynolds, J. L., Sherman School, 2901 Morrison, Houston, Tex.
- McSkimmon, Mary, Pierce School, 20 Clinton Rd., Brookline, Mass.
- McSwiggen, Alice, Jefferson School, Monastery Ave., Pittsburgh, Pa.
- Maass, H. H., Horace Mann School, Minneapolis, Minn.
- Mabrey, F. D., Intermediate School, 60 Grand Ave., Englewood, N. J.
- Maclear, J. F., Revere School, 7145 Ellis Ave., Chicago, Ill.; 825 Wesley Ave., Oak Park, Ill.
- MacClenathan, Ruth, Brooklyn School, 30th & Ash St., San Diego, Calif.
- MacCormac, J. W., President Portland Principals Ass'n., Davis School, 460 17th St., Portland, Oregon.
- MacDonald, Alice, Minnequa School, Dist. 20, 2919 Cheyenne, Pueblo, Colo.
- MacDonald, Fannie F., John W. Horton School, 3 Greene St., Providence, R. I.
- Mack, Mrs. A. C., Lincoln School, 2530 Chester Lane, Bakersfield, Calif.
- Mack, Bernice G., 180 Porter St., So. Manchester, Conn.
- Mackey, W. M., Grant School, 1112 No. Steele, Tacoma, Wash.
- MacMahon, Sarah Ida, B. C. Gregory School, 1111 Greenwood Ave., Trenton, N. J.
- MacMillan, Emma, 120 Cramer Ave., Montgomery, Ala.
- MacMillan, Jean, Ramona School, 1100 No. Normandie Ave., Los Angeles, Calif.
- Madden, Margaret, Doolittle School, 6600 Newgaard Ave., Chicago, Ill.
- Magee, Martha L., School No. 11, 1114 W. 8th St., Wilmington, Del.
- Magers, Ida R., 1801 Poplar Grove St., Baltimore, Md.
- Mahalo, Mrs. Dollie K., Nahiku School, Maui, T. H.
- Maher, Anna, Howe School, 10430 Charlevoix Ave., Detroit, Mich.
- Mahon, Ada J., Bailey Gatzert School, Seattle, Wash.
- Maine, Helen C., Davis School, 3014 W. 39th Pl., Chicago, Ill.
- Malone, Julia, Lincoln School, 308 Parkvoash, South Bend, Ind.
- Malone, Paul E., Jr. High School, R. No. 1, Box 130, Duncan, Ariz.
- Maloy, Arthur H., Union Grammar School, McFarland, Calif.
- Manley, Ida M., Etna School, 89 E. 41st St., N. Portland, Oregon.
- Mann, Addie May, Greenfield School, Pittsburgh, Pa.
- Mann, Blanche, N. Division School, Grand Rapids, Mich.
- Mansfield, Katherine M., 3137 Tuscarawas St., Canton, Ohio.
- March, Grace E., Lincoln School, New Brunswick, N. J.
- Marcey, C. A., Fullerton, Calif.
- Markland, Charlotte M., 179 Pine St., Lowell, Mass.
- Marlatt, Mrs. Marion, Wyoming School, Maplewood, N. J.
- Marley, Florence V., School No. 23, 1403 Harrison St., Wilmington, Del.
- Maroney, Mary T., Graham School, 4436 Union Ave., Chicago, Ill.
- Marsh, Lettie, W. Leonard School, 301 Oaklawn Ave., Wyoming Park, Grand Rapids, Mich.
- Marshall, Florence K., Fremont School, 4208 Swift Ave., San Diego, Calif.
- Marshall, H. C., Hubbard Elementary School, Columbus, Ohio.
- Marshall, Mary E., Magnolia Borough School, Nicholson Rd., Audubon, N. J.
- Marten, Mrs. Frances, 202 Upton Ave., Battle Creek, Mich.
- Martin, A. E., McCoy School, 16th & White, Kansas City, Mo.
- Martin, E. B., Logan School, Tacoma, Wash.
- Martin, Jane B., Bane School, 733 Aiken St., Pittsburgh, Pa.



- Martin, Sarah A., Whittier School, The Dalles, Ore.
- Martin, William H., Scranton St. School, 104 Hawthorne Ave., New Haven, Conn.
- Marvin, Adeline R., Draper School, 419 Sterling Pl., Madison, Wis.
- Marx, Mrs. E. M., Henry Clay School, Norfolk, Va.
- Mason, Mrs. Bertha, R. R. 5, Grand Rapids, Mich.
- Mason, Cecile, Jr. High School, 117 S. Main St., Yates Center, Kans.
- Mason, Estelle J., Halcyon Club, Wakefield, Mich.
- Mason, Eva T., Eastern Departmental School, Louisville, Ky.
- Mason, Kate, R. R. No. 1, Carmel, Ind.
- Mason, Mary A., Public School 55, Floyd St., Brooklyn, N. Y.
- Mather, Helen, Hiawatha School, 3111 Portland Ave., Minneapolis, Minn.
- Matheson, Anna May, North Queen Anne School, Seattle, Wash.
- Mathews, C. B., E. W. Grove School, P. O. Box 236, Paris, Tenn.
- Mathews, Mrs. Lula B., Comenius School, 16th & Pine, Omaha, Nebr.
- Mathis, F. M., Gary School, 120 So. Beverly St., Tyler, Tex.
- Matthews, Laura P., 5115 Grand Ave., Des Moines, Iowa.
- Matthews, Mrs. Lula B., Comenius School, Omaha, Nebr.
- Matthews, Nora, Sheldon School, 218 Lafayette Ave., Grand Rapids, Mich.
- Matzenger, Lena, Oakdale School, 1058 Selma St., Mobile, Ala.
- Maule, Mrs. E. O., Garden City Public School, Garden City, L. I.
- Maxson, Maud, R. F. D. No. 2, Box 298, Whittier, Calif.
- Maxson, W. S., Court St. School, White Plains, N. Y.
- Mazurowska, Martha M., Kruzca 29, Warsaw, Poland.
- Mead, Georgia E., Harrison School, 610 A. St., Lorain, Ohio.
- Meadows, E. M., 5520 So. Sixth Ave., Birmingham, Ala.
- Meck, Samuel R., Burr School, Chicago, Ill.; 810 Vernon Ave., Glencoe, Ill.
- Mecker, H. H., Patrick Henry School, 4946 Devonshire Ave., St. Louis, Mo.
- Meigs, Sarah I., Lincoln School, 32 Grand St., New Britain, Conn.
- Melear, Grace, North Fourth St. School, 1618 No. 15th St., Waco, Tex.
- Melny, Mary C., Asst. Supt. of Schools, 15 Beacon St., Boston, Mass.
- Melvin, Belle, Longfellow School, Everett, Wash.
- Memhard, Lillie, Colfox School, 208 So. Chapin St., So. Bend, Ind.
- Mendenhall, Clara, Wollaston School No. 9, 1312 Van Buren St., Wilmington, Del.
- Mercer, Elizabeth, Miller School, 203 E. Mill St., Akron, Ohio.
- Merchant, Ada Gray, Hotel Bowman, Nogales, Ariz.
- Merchant, Mary E., Speedwell School, Morristown, N. J.
- Merideth, G. H., Box 533, Marceline, Mo.
- Merriam, Mrs. Agnes, Groveton, N. H.
- Merrill, John, Lingemann School, 1526 Garland Ave., Detroit, Mich.
- Morris, E. E., Garfield School, Victor, Colo.
- Merthching, R. A. Oradell, N. J.
- Messenger, Elizabeth, Harvard School, 1849 E. 101, Cleveland, Ohio.
- Messler, W. A., School No. 32, Jersey City, N. J.
- Metras, L. H., Central School, 108 E St., S. E., Auburn, Wash.
- Meyer, Bessie T., Nicholas Finzer School, 1431 Hepburn Ave., Louisville, Ky.
- Meyer, Florence L., Hutton School, 24th & Plateau Rd., Spokane, Wash.
- Middlebrook, Bessie M., 131 21st St., Jackson Heights, L. I.
- Miles, Etta F., Elementary School No. 22, 292 Second St., Albany, N. Y.
- Miles, Mamie, Musser School, St. Joseph, Mo.
- Millford, Harvey M., Public School, Harwick, Pa.
- Miller, Emma L., Washington School, 544 W. 7th St., Erie, Pa.
- Miller, Mamie E., Box 180, Greer, S. C.
- Miller, May E., Bellevue School, R. F. D. No. 2, Lancaster, Calif.
- Miller, Persis K., 722 Wyndhurst, Baltimore, Md.
- Milliet, Harold J., Liberty St. Grammar School, 33 Crandall St., Adams, Mass.
- Mills, Jeannette, Kirkwood & Given School, 1415 24th St., Des Moines, Iowa.
- Milner, Mary L., Brandon School, 415 Seminary St., Florence, Ala.
- Mish, Arnold F., Marlowe School, Falling Waters, W. Va.
- Mitchell, Mrs. Louise K., Turner School, 701 Colt Ave., Grand Rapids, Mich.
- Mitchell, Mary W., Main St. School, 341 Hanover St., Manchester, N. H.
- Moffett, L. B., Summit School, Seattle, Wash.
- Mogle, Miss G. M., Leland School, 1354 Wright St., Los Angeles, Calif.
- Mogle, Mildred E., Point Firmin School, 1354 Wright St., Los Angeles, Calif.
- Mohler, Edna, 242 North 8th St., Coshocton, Ohio.
- Momhert, Eleanor, School No. 14, Paterson, N. J.
- Money, Ella B., Landon School, 2904 Garden Ave., Cleveland, Ohio.
- Montanye, Edwin G., Ferguson School, Philadelphia, Pa.; 8018 Crispin St., Holmesburg, Pa.
- Montgomery, Alice, Seward School, 106 East Genesee St., Auburn, N. Y.
- Montillon, Adeline B., Cleveland School, 1402 3d Ave., W., Cedar Rapids, Iowa.
- Mooney, Frances A. C., Hawthorne School, Shotwell St., San Francisco, Calif.
- Mooney, Mary J., Barnard School, 784 Elm St., New Haven, Conn.
- Moore, Dora M., Corona School, 1027 Emerson St., Denver, Colo.
- Moore, Florence E., 227 Pope St., New Bedford, Mass.
- Moore, Harold I., 129 Washington St., New Bedford, Mass.
- Moore, Ida, 234 Morgan St., Phoenixville, Pa.
- Moore, Josephine G., Sherman School, 2d & Grant, Denver, Colo.
- Moore, Kate, Harrington Memorial & Cedar Street Schools, 105 Park St., New Bedford, Mass.
- Moore, Lulu M., Lincoln School, Toledo, Ohio.
- Moore, Mabel I., Grammar School, 605 Main St., Burnside, Conn.
- Moore, Mary, Young School, 2809 Sacramento St., St. Joseph, Mo.
- Moore, Mary V., Public School No. 126, 536 E. 12th St., Manhattan, New York, N. Y.
- Moran, H. A., Main School, Box 333, Mishawaka, Ind.
- Morcella, Sister Mary, Convent of Mercy, Hazleton, Pa.
- Morehouse, Helen B., Baker School, Darien, Conn.
- Morey, Anna A., School No. 14, 573 First St., Troy, N. Y.
- Morgan, J. B., Central School, Montrose, Colo.
- Morgan, Paul, Barwise School, Wichita Falls, Tex.



- Morgan, Sheldon, Columbus St. School, Gregory Ave., Ashtabula, Ohio.
- Morgan, Walter E., 1010 Pacific Ave., Alameda, Calif.
- Morley, Sallie G., H. C. Lea School, 47th & Locust Sts., Philadelphia, Pa.
- Morris, Mary E., Columbian School, 1661 Harrison, Denver, Colo.
- Morris, Mylitta, Riviera School, Edgerly Court Apts., Santa Barbara, Calif.
- Morrison, Eva, P. O. Box 202, Crystal Falls, Mich.
- Morrison, R. H., Director, Extension Service, Colorado State Teachers College, Denver, Colo.
- Morse, Victoria E., Kalb School, 309 N. Linn St., Bay City, Mich.
- Morstatler, Catherine, Wooster School, New Haven, Conn.
- Mortensen, G. E., Prescott School, Oakland, Calif.; 474 Dutton Ave., San Leandro, Calif.
- Mortimer, Agnes O., Bryant School, 1412 E. St., Lincoln, Nebr.
- Morton, F. E., Brooks High School, 412 W. College St., Griffin, Ga.
- Morton, Max D., Thatcher School, Pueblo, Colo.
- Moulton, Mary E., 265 Milford St., Manchester, N. H.
- Mount, Mrs. Florence D., Figueroa St. School, 625 E. Lomita Ave., Los Angeles, Calif.
- Moyers, A. E., Supt. of Schools, Sidney, Iowa.
- Moynihan, H. J., 1758 W. 55th St., Chicago, Ill.
- Muench, J. F., Supt. of Schools, Mountain Iron, Minn.
- Muldrow, Alice, Rosemont School, 406 N. Edgefield, Station "A," Dallas, Tex.
- Mulholland, Mary, Lake St. School, 908 Reed St., Kalamazoo, Mich.
- Mumford, E. H. E., Ferris School, Highland Park, Mich.
- Mumm, Emma C., Hosea School, 3133 Penn St., St. Joseph, Mo.
- Munson, W. E., Longfellow School, 2131 Stanislaus St., Fresno, Calif.
- Murdock, Rebecca J., Stephen C. Foster School, 307 So. Pacific Ave., Pittsburgh, Pa.
- Murkland, Charlotte M., Bartlett Training School, 179 Pine St., Lowell, Mass.
- Murphy, John S., High School, Moscow, Tenn.
- Murphy, Katherine T., Cove School, 54 Suburban Ave., Stamford, Conn.
- Murray, Albert S., LaFayette School, 1242 W. Minnehaha, St. Paul, Minn.
- Murray, Mrs. Mary, 2424 Corina St., Tampa, Fla.
- Murray, Miss V. E. M., Wilton Place School, 2111 Aubury St., Los Angeles, Calif.
- Musser, Mary B., Parkersburg, Pa.
- Myers, C. W., Prescott School, 12 Thorp St., Kansas City, Kans.
- Myers, Emma G., Chapman Ave. School, Fullerton, Calif.
- Myers, Fannie, Webster School, 3030 Lafayette Ave., Omaha, Nebr.
- Myers, Mary E., Portage Path School, 85 So. Adolph Ave., Akron, Ohio.
- Nagel, Florence, 142 W. Van Buren St., Battle Creek, Mich.
- Nagle, Mary I., 3108½ Altura St., Los Angeles, Calif.
- Nagley, J. H., Schneider's Prairie School, R. F. D. No. 1, Olympia, Wash.
- Nants, J. S., Bates School, St. Louis, Mo.
- Nash, Della, Floyd School, 1015 Faraon, St. Joseph, Mo.
- Needham, Muriel B., Chowchilla School, Chowchilla, Calif.
- Neereamer, Cora, Heyl Ave. School, Columbus, Ohio.
- Nell, Jane, Spalding School, 1623 Park Ave., Chicago, Ill.
- Nelson, H. G., Jr. High School, 201 E. Tenth St., Santa Ana, Calif.
- Nelson, Minnie, Hyde School, 1315 N. 10th, St. Joseph, Mo.
- Neubauer, Paul F., 146 East Center St., Wawatosa, Wis.
- Neuman, Ruth, 65 Avenue D., New York, N. Y.
- Neumeyer, Miss A. B., Hubbard School, 11th & Kenyon Sts., Washington, D. C.
- Nevins, C. V., Jefferson School, 342 15th St., Oshkosh, Wis.
- Newell, Aaron, Youngstown School, Seattle, Wash.
- Newell, Anna W., Gates Lane School, 21 William St., Worcester, Mass.
- Newell, Elizabeth T., Osgood School, Fourth St., Medford, Mass.
- Newell, Minnie B., North Main St. School, R. D. Box 218, Spring Valley, N. Y.
- Newman, Annie S., Mayfair School, 4527 N. Kilpatrick Ave., Chicago, Ill.
- Newson, Amanda J., Berina School, Berino, N. M.
- Newton, Dora E., Grant School, 2809 9th Ave., Rock Island, Ill.
- Newton, F. L., New London, Conn.
- Nichols, Fred E., Marsh School, 9810 S. Exchange Ave., Chicago, Ill.
- Nichols, William E., Washington School, 385 Waugoo St., Oshkosh, Wis.
- Nichols, W. R., Supt., Consolidated School District, Winslow, Wash.
- Nicholson, Arthur M., 1900 N. 23d St., Chicago, Ill.
- Nicholson, Nell G., Shenandoah School, 2330 Tennessee Ave., St. Louis, Mo.
- Niemier, Minnie A., 418 Union Ave., Mt. Vernon, N. Y.
- Nixon, Elizabeth, Jr. High School, 1308 Monroe St., Amarillo, Tex.
- Noble, Margaret, Dunlap School, 51st & Race Sts., Philadelphia, Pa.
- Noce, Lillian, 3726 Vallejo St., Denver, Colo.
- Nolan, Walter C., Washington School, 571 4th Ave., San Francisco, Calif.
- Norton, H. B., 7922 Underwood Ave., Birmingham, Ala.
- Nute, Arthur C., Snowden School, Memphis, Tenn.
- O'Bannon, Mary B., R. F. D. No. 1, Box 47, Berkeley, Calif.
- O'Boyle, Lilla M., 24th St. School, 829 Fillmore St., Denver, Colo.
- Ober, M. J., 1302 Ashland Ave., Norfolk, Va.
- O'Brien, Nell, Washington School, San Jose, Calif.
- O'Connor, Miss C. J., Excelsior School, 137 3d Ave., San Francisco, Calif.
- O'Connor, Margaret A., Harrison School, 13422 Merl Ave., Lakewood, Ohio.
- O'Connor, Mary, McKinley School, 110 E. 17th St., Erie, Pa.
- O'Connor, Mary, Park School, 2049 So. 19th St., Lincoln, Nebr.
- O'Connor, Mary E., School Street School, 158 Highland St., Taunton, Mass.
- O'Dea, Margaret, Laurel School, 324 So. College Ave., Fort Collins, Colo.
- O'Hara, Francis J., Thorndike School, Cambridge, Mass.
- O'Keefe, Mrs. Mary W., 4117 Michigan Ave., Chicago, Ill.
- Olinder, Selma B., Hawthorne Grammar School, 114 N. Third St., San Jose, Calif.
- Olmstead, Helen M., 500 Bird Ave., Buffalo, N. Y.
- O'Malley, Margaret, School No. 21, Hertel & Dela. Ave., Buffalo, N. Y.

- O'Neill, Cordelia L., Gilbert School, Cleveland, Ohio.
- O'Neill, Jennie M., Duggan School, 50 Hewlett St., Waterbury, Conn.
- Orr, Marie S., 652 Maryland Ave., Pittsburgh, Pa.
- Ossire, Cora A., Jackson School, Washington, D. C.
- Ostrom, Mrs. Ivy Douglas, James Lick School, 25th & Noe Sts., San Francisco, Calif.
- Otis, Elizabeth, Center School, 178 Thomas St., Bloomfield, N. J.
- O'Toole, Margaret K., Lathrop School, Omaha, Nebr.
- Ousley, Mrs. E. L., Driftwood, Tex.
- Outcalt, Mrs. Adele M., Garfield School, 925 Robinson St., San Diego, Calif.
- Owens, Alice, 191 Main St., North Adams, Mass.
- Ozier, W. C., 1908 14th Ave., N., Birmingham, Ala.
- Page, Miss J. E., Randall-Cardozo School, 1st & Eye Sts., S. W., Washington, D. C.
- Paine, Mae L., 131 W. Ave. 42, Los Angeles, Calif.
- Painter, W. C., Erral Heights School, 1801 E. Everett St., Portland, Oregon.
- Palmer, Jasper T., Mee School, Mt. Vernon, N. Y.
- Palmer, U. G., Supervising Principal, Verona, Pa.
- Pantall, Myrta, P. S., Franklin Bldg.; 515 So. Third Ave., Sterling, Colo.
- Pardue, D. C., Jefferson St. School, Memphis, Tenn.
- Park, J. E., Alamo School, 1207 Monroe St., Wichita Falls, Tex.
- Parker, William, Albina Homestead School, 619 Rodney Ave., Portland, Oregon.
- Parker, Willis N., Schaeffer-Wistar School, 5331 Rising Sun Ave., Olney Station, Philadelphia, Pa.
- Parkhurst, Marlon C., 30 Elmwood Ave., Burlington, Vt.
- Parks, Belle L., Superior School, 1847 Knowles St., E. Cleveland, Ohio.
- Parr, Cora A., Curtis & Benton School, 695 37th St., Des Moines, Iowa.
- Parr, Eunice E., Farrin School No. 12, 1919 E. Houston St., San Antonio, Tex.
- Parrott, Hazel M., 133 S. West St., Lima, Ohio.
- Parry, Samuel D., Lowell-Olney School, 541 Pelham Rd., Mt. Airy, Philadelphia, Pa.
- Parsons, Addie M., Mt. Hermon School, Salisbury, Md.
- Parsons, Caroline H., Emerson School, 316 So. Oak Park Ave., Oak Park, Ill.
- Parsons, George W., Lincoln School, 2 Cross St., Medford, Mass.
- Partridge, Mrs. Clara M., Oxford School, 2413 Milvia St., Berkeley, Calif.
- Pate, Florence, Lawler School, Memphis, Tenn.
- Pattee, Ida M., Bryant School, Spokane, Wash.
- Patterson, Carrie F., Bancroft School, 108 W. Oak St., Chicago, Ill.
- Patterson, M. J., Irving School, 24th & Prospect, Kansas City, Mo.
- Patterson, Mrs. Mamie L., Neill School, El Paso, Tex.
- Patterson, M. Rose, 631 Euclid Ave., Baltimore, Md.
- Patterson, Ollie T., Wickersham School, 234 N. Craig St., Pittsburgh, Pa.
- Patterson, Wilhelmina, McKay School, Beverly, Mass.
- Patton, Bessie Jane, 2954 Hillegas Ave., Berkeley, Calif.
- Patton, Leonard M., Edward Everett School, Dorchester, Mass.
- Patton, O. M., Rothenberg School, Cincinnati, Ohio.
- Paulsen, Gertrude M., Public School 105, 410 A Sackett St., Brooklyn, N. Y.
- Paxton, Agnes M., Lafayette School, 206½ E. State St., Jacksonville, Ill.
- Payette, Pearl, Bedford, Mich.
- Paylor, Ivey, Supt. of Schools, Reidsville, N. C.
- Payne, Alice, Dunbar School, 532 Washington Ave., Wellsville, Ohio.
- Payne, Mrs. Eunice R., Alta Vista School, El Paso, Tex.
- Payne, John C., 654 L. St., N. E., Washington, D. C.
- Peabody, Mrs. Ella, 567 Nebraska Ave., Toledo, Ohio.
- Pease, Mrs. Gertrude S., Swing School, 4136 N. Kedvale Ave., Chicago, Ill.
- Pearson, Emeline, 27 Drake St., Omaha, Nebr.
- Pearson, Lora, Ward Bldg., 704 S. Harrison St., Shelbyville, Ind.
- Peasley, Florence E., Brant School, 660 Putnam St., Kenosha, Wis.
- Pechin, Mrs. Celina R., Jean Parker School, 1499 Mason St., San Francisco, Calif.
- Peed, Julia, 9 So. Elm, Hutchinson, Kans.
- Peirce, Bessie P., H. A. Kempton School, New Bedford, Mass.
- Pendleton, Della, Forest School, 473 E. 3d, Salt Lake City, Utah.
- Pendleton, M. R., Jefferson St. School, 540 Ximeno Ave., Long Beach, Calif.
- Perkins, Frank H., Public School No. 26, 110 Cambridge Place, Brooklyn, N. Y.
- Perkins, G. W., 409 E. Carthage St., Mexico, Tex.
- Perkins, Josie, Ave. A. School, Hutchinson, Kans.
- Perring, Louise F., F. S. Key School, 5426 Angora Terrace, Philadelphia, Pa.
- Perry, C. E., Fulton Park School, 1134 Gladstone Ave., Portland, Oregon.
- Perry, Irma Linda, Eden Park, R. I.
- Pesta, Rose A., West Pullman School, Windermere Hotel, Chicago, Ill.
- Peterman, May B., 1112 So. 12th, St. Joseph, Mo.
- Peters, Edith C., 3910 W. 33d St., Cleveland, Ohio.
- Peters, Florentine, Grant School, 1543 Aberdeen St., Chicago Heights, Ill.
- Peters, Leone E., Eugene Field School, 47th & 4th Ave., So., Minneapolis, Minn.
- Peters, Mille G., New Era School, Saugus, Calif.
- Peters, Thomas H., Wm. Carter & Avery Schools, Needham Heights, Mass.
- Peterson, Alice C., Dundee School, 51st & Davenport, Omaha, Nebr.
- Peteys, W. A., Peninsula School, 4007 64th St., S. E., Portland, Oregon.
- Pettit, J. E., Mayfair School, 1867 Charles Rd., E. Cleveland, Ohio.
- Pfeiffer, Anna, Fourth St. School, 484 Linwood Ave., Columbus, Ohio.
- Phelps, Grace C., Mt. Vernon Elementary School, 88 Linwood Ave., Columbus, Ohio.
- Phillips, Byron A., Blaine School, 30th & Norris Sts., Philadelphia, Pa.
- Phillips, Ellen M., 410 W. 148th St., New York, N. Y.
- Phillips, Mrs. Jane E., Eastwood Ave. School, 7 Auburn Ave., Columbus, Ohio.
- Phillips, Mary E., Battell School, 921 Lincoln Way E., Mishawaka, Ind.
- Pickett, Lillian, Kearsley St. School, 111 W. Baker St., Flint, Mich.
- Pierce, Adelaide, Cary School, Chelsea, Mass.
- Pierce, Mrs. Pearl, 146 Broadway, Melrose Park, Ill.
- Pierson, Blanche, Public School, West Long Beach, N. J.

- Piland, Effie, 496 Highland Ave., Beaumont, Tex.
- Pinhard, Estella M., 3706 Library Ave., Cleveland, Ohio.
- Piper, Sarah M., Church St. School, 230 First Ave., Frankfort, N. Y.
- Pircher, Mrs. Bertha, Swasticka Elementary School, Swasticka, N. Mex.
- Pitkin, Mrs. Virginia R., 300 So. Third St., Alhambra, Calif.
- Plank, Carrie, Pine School, 458 Second St., Grand Rapids, Mich.
- Plumb, Kathleen G., South Ward School, Clearwater, Fla.
- Plumb, Mae A., Columbine School, 909 Third Ave., Longmont, Colo.
- Plummer, Bessie T., J. Burroughs School, 50th & Humboldt, Minneapolis, Minn.
- Pogue, James V., 5104 1st Ave., Birmingham, Ala.
- Polk, Lillie B., 1804 Faraon, St. Joseph, Mo.
- Poore, Margaret I., 2951 McClure St., Oakland, Calif.
- Porcher, Maria R., Bancroft School, 3549 DuPont Ave., S., Minneapolis, Minn.
- Porter, C. C., Central School, 1206 Hazel St., Texarkana, Tex.
- Porter, C. H., Washington School, Cincinnati, Ohio.
- Porter, Fannie, Failing School, 1010 Jackson St., Oregon City, Oregon.
- Porter, Roberta, Pimlico School, Oakley Ave. & Pimlico Rd., Baltimore, Md.
- Porter, W. A., Prescott School, 3248 10th Ave., So., Minneapolis, Minn.
- Poteet, Bernice, Mt. Auburn School, 5400 Columbia, Dallas, Tex.
- Potter, Charles Rainier Elementary School, Seattle, Wash.
- Potter, Cora, West Hill School, Ilon, N. Y.
- Potter, Mrs. Edna H., Auxiliary School for Exceptional Children, 301 Dale St., N. E., Grand Rapids, Mich.
- Potter, Mrs. Nellie I., 36th St. School, 312 W. 16th St., Los Angeles, Calif.
- Pottle, Annie C., J. B. Bright School, 31 Floyd St., Waltham, Mass.
- Pottle, Myrna E., 214 W. Oak St., Lodi, Calif.
- Potts, Frances, Avenue B School, Council Bluffs, Iowa.
- Powell, Mrs. Katherine, Church Home School, Memphis, Tenn.
- Powell, Nellie, 86 Ormond St., Frostburg, Md.
- Powell, Thomas E., 1134 24th St., Parkersburg, W. Va.
- Power, Leonard, Franklin School, 312 De Queen Blvd., Port Arthur, Tex., *Honorary Member*.
- Powers, Etta R., 30 S. State St., Salt Lake City, Utah.
- Pratt, Walter M., Waterloo, N. Y.
- Prendergast, Katharine, Adams School, Armstrong Ave. & View St., St. Paul, Minn.
- Preston, Edith A., Dutcher St. School, Hopedale, Mass.
- Preston, E. M., Prospect School, E. Cleveland, Ohio.
- Price, M. H., 310 College St., Birmingham, Ala.
- Prideaux, A. J., Woodstock School, 55th Ave. & 113th St., S. E., Portland, Ore.
- Prior, Elizabeth F., Sawtelle Blvd. School, 95, 229 N. Sichel St., Los Angeles, Calif.
- Probst, Ella, Longfellow School, Minneapolis, Minn.
- Provost, Mrs. Jennie M., Broadway School, 506 Summit Ave., Hackensack, N. J.
- Purer, Mary I., Lafayette School, 543 Roscoe St., Chicago, Ill.
- Purinton, Estelle, Holmes School, Spokane, Wash.
- Pyle, F. J., Jr. High School, 201 Jones Ave., Morgantown, W. Va.
- Pyrtle, E. Ruth, McKinley School, 15th & M. Sts., Lincoln, Nebr.
- Quigley, Mary L., Whittier School, 921 W. Silver St., Butte, Mont.
- Quirk, Margaret, Washington School, St. Joseph, Mo.
- Rabenort, Wm., 2 Washington Terrace, New York, N. Y.
- Rae, Margaret, Public School No. 1, Manhattan, Henry St., New York, N. Y.
- Ragsdale, S. L., F. M. Guthrie School, 1429 Faxon Ave., Memphis, Tenn.
- Raine, Ida, 40 Frelinghuysen Ave., Battle Creek, Mich.
- Ramey, Belle, School No. 10, Ashland & 13th, Indianapolis, Ind.
- Rand, Herbert L., Pickering School, 21 Hemenway Rd., Salem, Mass.
- Randels, H. M., Lincoln School, 223 S. Bluff Ave., Anthony, Kans.
- Rape, Arthur O., 7100 Yale Ave., Chicago, Ill.
- Rashleigh, Alice V., Leonard Wood School, Box 33, Carbondale, Pa.
- Rawlings, Julia M., The Marlborough, Washington, D. C.
- Ray, Mary S., 3849 N. Delaware St., Indianapolis, Ind.
- Ray, Mollie E., De Laney School, 624 So. Lake St., Orlando, Fla.
- Raymond, Ward, Hallis School, Braintree, Mass.
- Raynor, Bertha L., Clinton School, 1512 W. Colvin St., Syracuse, N. Y.
- Reagan, W. A., 2312 17th St., Birmingham, Ala.
- Reddy, Joseph A., William E. Endicott District School, Boston 21, Mass.
- Redfield, R. P., J. B. Young School, 17th & Harrison Sts., Davenport, Iowa.
- Reed, Grace, Willard School, 601 E. 43d St., Chicago, Ill.
- Reed, Martha, Ott School, 521 S. High St., Independence, Mo.
- Reed, Myrtle, Monroe School, 23d & Franklin Aves., Minneapolis, Minn.
- Reese, Pauline, 1710 E. Gadsden St., Pensacola, Fla.
- Regus, Milton L., Curtis Bay School, 2240 W. Baltimore St., Baltimore, Md.
- Rehm, Emma, Washington School, 304 N. Delaware Ave., Mason City, Iowa.
- Reibert, Lydia, 1306 Highland Ave., Louisville, Ky.
- Reichert, C. Lorena, Longfellow School, 2134 Keyes Ave., Madison, Wis.
- Reichert, Harriet C., Orchard School, 8628 Wade Park Ave., Cleveland, Ohio.
- Reigart, John F., 31 Euclid Ave., Yonkers, N. Y.
- Reilly, Alice, Maury School, Memphis, Tenn.
- Reilly, Caroline, Chalmers School, 1220 So. Fairfield Ave., Chicago, Ill.
- Reisse, Mary W., Simon Muhr School, 2010 N. 18th St., Philadelphia, Pa.
- Reither, M. Louise, E. Main St. School, 60 E. Hudson St., Columbus, Ohio.
- Remick, Nellie A., 320 No. Cascade Ave., Colorado Springs, Colo.
- Renley, Elizabeth, Johnson School, Montrose, Colo.
- Renand, Flora V., Harvard School, 304 W. 71st St., Chicago, Ill.
- Reppets, Mary D., Webster School, 2006 Warwood Ave., Wheeling, W. Va.
- Resh, Martha P., Tyler School, Reisters-town, Md.
- Reszke, F. E., Whittier School, Cincinnati, Ohio.
- Reuter, J. George, Supt. of Schools, Corydon, Ind.



- Reynolds, Helen M., 846 Central Bldg., Seattle, Wash.  
 Reynolds, Leland F., Public School, Midland Park, N. J.  
 Reynolds, Maude, Lincoln School, 215 W. 5th St., Ottumwa, Ia.  
 Rhea, Lillian, Peabody School, Memphis, Tenn.  
 Rhoades, Gertrude L., Liberty School, 171 Harris St., Revere, Mass.  
 Rhodes, Maude A., 72 Park Ave., Atlanta, Ga.  
 Rhodes, Sara, Public School No. 28, 1001 Herkemar St., Brooklyn, N. Y.  
 Rhodes, Thaddeus H., Daniel Webster School, 20th & Missouri Sts., San Francisco, Calif.  
 Rhoton, A. L., Box 103, State College, Pa.  
 Rhysburger, Amelia H., 2415 Pierce St., Sioux City, Iowa.  
 Rice, Miss Klifford, Bailey School, El Paso, Tex.  
 Rich, Frank M., School No. 19, 133 Walnut St., Paterson, N. J.  
 Richards, D. S., Linwood School, Eastern Ave., Cincinnati, Ohio.  
 Richards, Sophia E., Yeager School, 3930 Troost Ave., Kansas City, Mo.  
 Richardson, Alice E., West Gilsom, N. H.  
 Richardson, Dio, Horace Mann School, 24th Ave. & E. Cherry St., Seattle, Wash.  
 Richardson, Hattie E., Vassar School, 2337 Dexter St., Denver, Colo.  
 Richardson, Mattie L., Staunton Ave. School, 1310 W. 68th St., Los Angeles, Calif.  
 Richmond, J., Maplewood School, Maplewood, Mo.  
 Richmond, Margaret, Harrison St., Cumberland, Md.  
 Ridenour, H. M., Supt. of Schools, Box 2067, Pomeroy, Wash.  
 Rieder, Frank W., Burnside School, 709 E. 89th St., Chicago, Ill.  
 Riegner, Rebecca, Ellwood School, 13th & Oak Lane, Oak Lane, Philadelphia, Pa.  
 Rieman, Ella H., Muesel School, South Bend, Ind.  
 Riggs, Cora M., Straigt School, 25 Rochester Ct., Grand Rapids, Mich.  
 Riggs, Ora M., Knickerbocker School, 2301 Clifton Ave., Chicago, Ill.  
 Riley, Mrs. E., 4366 Eastlawn Ave., Detroit, Mich.  
 Rinehart, Mrs. Helen H., Marion School, Cor. 4th & Marion Sts., Marietta, Ohio.  
 Rinehart, Love, 16 E. Wayne St., Waynesboro, Pa.  
 Riniker, Amelia, Garfield School, 1431 Henry Ave., S. W., Canton, Ohio.  
 Riordan, C. F., Sheridan Grammar School, 945 Jones St., San Francisco, Calif.  
 Ritchie, Frances, McKinley School, 1201 N. 2d, St. Joseph, Mo.  
 Ritchie, Mary E., Le Von, Hoover St. School, 714 Irolo St., Los Angeles, Calif.  
 Ritter, B. T., Mt. Washington School, Independence & Arlington Aves., Mt. Washington, Mo.  
 Roach, Mary M., Roach School, 439 W. Wood St., Decatur, Ill.  
 Roark, M. O., Bancroft School, Spokane, Wash.  
 Roberts, Harlan, Honomakan Jr. High, Kohala, Hawaii.  
 Roberts, L. D., Chapman School, 910 Bryce Ave., Portland, Oregon.  
 Roberts, Mary E., Mayflower School, 2084 E. 46th St., Cleveland, Ohio.  
 Robertson, Martin B., Central Grammar, 219 Church St., Hartford, Conn.  
 Robeson, J. A., Perry Orphan's Home School, Westport & Bellevue, Kansas City, Mo.  
 Robinson, Alice E., 103 Hazelwood Ave., Detroit, Mich.  
 Robinson, Annie J., Hazeldell School, Cleveland, Ohio.  
 Robinson, Beatrice, Jackson and Jefferson Schools, Everett, Wash.  
 Rocfort, B. A., Webster School, 4256 Maryland Ave., St. Louis, Mo.  
 Rockne, L. M., Supt. of Schools, Churchs Ferry, N. Dak.  
 Rogers, Don C., Special Secretary Principals Club, 64 E. Van Buren St., Chicago, Ill.  
 Rogers, Ethlyn, Ironton School, 1547 Gaylord, Denver, Colo.  
 Rogers, Frances G., Colman School, 6200 Kenwood Ave., Chicago, Ill.  
 Rogers, George Calvin, 190 Tradd St., Charleston, S. C.  
 Romick, Nell, Swansea School, 2205 Endora St., Denver, Colo.  
 Romig, Ida V., 1319 W. Ninth St., Coffeyville, Kans.  
 Ronning, O. E., Raymond, S. D.  
 Rood, Mary B., Sumner School, Minneapolis, Minn.  
 Roosa, Annette, Jr. High School, 717 Kelley Ave., Devils Lake, N. D.  
 Rosas, Teresa, Mateo Fajardo, Hormigueros, Porto Rico.  
 Rose, Gerald A., Mexico Jr. High School, 89 South Main St., Ridgionville, Maine.  
 Roseboom, J. Agnes, South St. School, Auburn, N. J.  
 Rosenthal, Almee, A. L. Holmes School, Detroit, Mich.  
 Ross, Agnes, 73 Chestnut St., Battle Creek, Mich.  
 Ross, Margaret, 73 Chestnut St., Battle Creek, Mich.  
 Ross, Miss M., St. Clair School, 3918 Montclair, Detroit, Mich.  
 Ross, Pete W., Washington Grammar School, 3968 Park Blvd., San Diego, Calif.  
 Rossman, Mabel, 6141 University Ave., Chicago, Ill.  
 Roth, Fred G., Clayton School No. 2, 4047 Shaw Ave., St. Louis, Mo.  
 Rowell, Arthur B., Supt of Schools, Drawer H., Glencoe, Ill.  
 Rowell, Miss M. G., El Sereno School, 271 Oak Knoll Ave., Pasadena, Calif.  
 Rowley, Clara, Franklin School, Pres. Principals' Club, 5 Carney Terrace, Melrose, Mass.  
 Rowley, Ruby Elizabeth, Foster School, 1633 Chicago Ave., Evanston, Ill.  
 Roys, Cassil, F., South Central School, Omaha, Nebr.  
 Roys, Lincoln, Franklin School, 215 Dodd St., East Orange, N. J.  
 Ruby, Isabel H., Washington Ave. School, 213 Park Ave., Oneida, N. Y.  
 Rudduck, Lillian W., 5670 Missouri Ave., Detroit, Mich.  
 Ruddy, Harriet E., Phalen Park School, Payne Ave. & E. Rose St., St. Paul, Minn.  
 Rudy, Mrs. Anna M., Elementary School, 222 E. Columbia St., Colorado Springs, Colo.  
 Rueff, Mrs. Katherine S., Healey School, 1440 E. 52d St., Chicago, Ill.  
 Rugg, George, Quinsigamond School, 35 Somerset St., Worcester, Mass.  
 Ruhneke, R. H., Mineral St. School, Milwaukee, Wis.  
 Runyan, D. L., Hoffman School, Victory Blvd., Cincinnati, Ohio.  
 Russell, Edna C., South Ave. School, 165 Regent St., Youngstown, Ohio.  
 Rutherford, Mildred, 1821 Wilton Place., Hollywood, Los Angeles, Calif.  
 Rutherford, Mrs. R. R., 700 Alura Ave., Jacksonville, Fla.  
 Ryan, Ella M., Public School 69, The Bronx, New York, N. Y.



- Ryan, Estelle E., Whittier School, 22 Maryland Hotel, Great Falls, Mont.
- Ryan, Francis A., Knapp School, Somerville, Mass.
- Ryan, Laura, Whittier-Arensdaale School, 1828 North Corona, Colorado Springs, Colo.
- Ryder, William Hugh, Oceanport Grammar School, Oceanport, N. J.
- Sabold, E. Carrie, 6234 Ridge Ave., Philadelphia, Pa.
- Sachse, T. J., Supt. of Schools, Winsted, Conn.
- St. Clair, Robert, 509 W. 121st St., New York, N. Y.
- St. Onge, Marcella M., Meadow School, 95 Governor St., East Hartford, Conn.
- Sampson, Ada C., 77 Cleveland Ave., Santa Cruz, Calif.
- Sampson Elizabeth H., Hedge School, Clifford Rd., Plymouth, Mass.
- Samuels, Ethel M., Bayard School, New Brunswick, N. J.
- Samworth, Ellen, School No. 13 & 27, 1508 Lancaster Ave., Wilmington, Del.
- Sanders, Grace S., 152 Wilson St., Baltimore, Md.
- Sandford, Martha M., Lakeside School, Gratcher Apt. A 6, Pittsburg, Kans.
- Sanford, Helen M., Dewey School, Evanston, Ill.
- Sargeant, Ide G., Public School 10, Paterson, N. J.
- Saunders, Lucy S., Supervisor Elem. Grades, Norfolk, Va.
- Saurman, Mrs. Bertha M., Liberty School, 96 Engle St., Englewood, N. J.
- Savoy, Albert K., Burrville School, 217 T St., N. W., Washington, D. C.
- Sawyer, E. M., Hyde Park School, 4715 Ward St., Cincinnati, Ohio.
- Sawyer, Mrs. Nellie L., West Side School, 361 Arnold St., New Bedford, Mass.
- Saxton, Emma, Magnolia Ave. School, 1015½ Virginia Place, Glendale, Calif.
- Scanlon, Lucille M., Freeland Park, Ind.
- Scarlett, Andrew, Forest St. School, 485 Tilton Rd., Orange, N. J.
- Schaefer, Louise, McKinley School, Great Falls, Mont.
- Schartung, J. A., 554 Dawson Ave., Bellevue, Pittsburgh, Pa.
- Scheel, Elizabeth A., Comegys School, 2013 Diamond St., Philadelphia, Pa.
- Scherer, Mary A., Garfield School, Hotel Cadillac, San Francisco, Calif.
- Schiel, Louis M., 23d Dist. School, Vine St. & University Ave., Cincinnati, Ohio.
- Schmek, Cecilia B., Ris School, 3214 Hirsch St., Chicago, Ill.
- Scholdager, Inger M., Peirce School, 1423 Bryn Mawr Ave., Chicago, Ill.
- Schlagle, F. L., Argentine High School, Kansas City, Kans.
- Schlotman, R. C., 27th Dist. School, Cincinnati, Ohio.
- Schmitt, Elizabeth D., Broad St. School, 18 W. Wetmore St., Cuyahoga Falls, Ohio.
- Schmitz, Alvinia, Humboldt School, 1014 Felix St., St. Joseph, Mo.
- Schneucker, Elizabeth S., Horace Mann School, Craig St., Schenectady, N. Y.
- Schoolcroft, Pearl T., 1439 Forbes St., Kalamazoo, Mich.
- Schrepel, C. B., Consolidated Schools, Burns, Kans.
- Schroeder, Esther L., Assistant Principal Washington School, 425 Ridgeway Ave., Cincinnati, Ohio.
- Schroll, Louise, Columbus School, 7105 Ridge Blvd., Chicago, Ill.
- Schultz, Frederick, Garfield School, 910 Walnut St., Erie, Pa.
- Schwall, Mary E., P. O. Box 274, So. Dartmouth, Mass.
- Schwartz, Albert, Cummins School, 243 Albion Place, Cincinnati, Ohio.
- Scorer, Sadie M., 2008 West St., Homestead, Pa.
- Scott, Belle Toney, Fulton School, Fulton & 9th Sts., Columbus, Ohio.
- Scott, Mrs. Elizabeth, LeConte School, 585 Page St., San Francisco, Calif.
- Scott, John, Sherman School, 931 George St., Middletown, Ohio.
- Scribner, Emily, 3413 13th St., N. E., Washington, D. C.
- Scruggs, Maude, Rozelle School, Roland & Walker Ave., Memphis, Tenn.
- Scudder, J. W., Bagley School, Seattle, Wash.
- Seamon, G. A., Hotel Del Prado, Chicago, Ill.
- Seegers, J. C., Tileston School, 1205 Chestnut St., Wilmington, N. C.
- Self, Louisa D., Springfield School, 214 Gross St., Pittsburgh, Pa.
- Selke, Erich, Supt. of Schools, Wayzata, Minn.
- Sellman, W. N., Edward Wyman School, 1547 S. Theresa Ave., St. Louis, Mo.
- Sempill, Ada B., Falconer School, 725 N. Lotus Ave., Chicago, Ill.
- Seran, Edith G., Wm. Livingston School No. 10, 20 Parker Rd., Elizabeth, N. J.
- Sexton, L. J., Mason School, 6031 Southwest Ave., St. Louis, Mo.
- Seymour, Charlotte M., Glover School, Marblehead, Mass.
- Shackford, Vesta E., Berkeley St. School, Lawrence, Mass.
- Shaffer, Charles G., Elliott St. School, Newark, N. J.
- Shane, C. N., Daniel Webster School, 5719 College Ave., Oakland, Calif.
- Sharpe, Mrs. Florence M., Lavalette, N. J.
- Sharpnack, Natalie, McKinley School, 81 Fair St., Salem, Ohio.
- Shattuck, Alice B., Baldwin School, 15 W. Howard St., Pontiac, Mich.
- Shaver, Ida A., Cooper School, 6814 East End Ave., Chicago, Ill.
- Shaw, Sallie Reid, 812 W. 9th St., Wilmington, Del.
- Shedd, Kendrick, High School, Naples, N. Y.
- Sheffield, Mrs. F. L., 115 Garnett Ave., Mobile, Ala.
- Shellington, A. Mary, Center Ave. School, 530½ Fourth St., Niagara Falls, N. Y.
- Shelton, Maude, Lincoln Jr. High School, 415 Cable St., Kenosha, Wis.
- Shenefield, B. C., Studebaker School, South Bend, Ind.
- Shepherd, Mrs. Edith P., Warren School, 9210 Chappel Ave., Chicago, Ill.
- Sheppe, Mrs. A. L., Jefferson School, 519 Lee St., Bristol, Va.
- Sheridan, Margaret L., Carr School, 1421 Carr St., St. Louis, Mo.
- Sherman, Elizabeth M., Jefferson School, Oakland, Calif.
- Sherwood, H. M., Stephens School, 7 E. 65th St., North, Portland, Oregon.
- Sherwood, Mrs. M. B., Wiley School, 214 E. Morgan, Raleigh, N. C.
- Shield, Ruth, Longfellow School, 1120 N. Monroe St., Peoria, Ill.
- Short, Edith M., Euclid Ave. School, 465 Patterson Ave., Glendale, Calif.
- Shove, Helen B., Lincoln School, Minneapolis, Minn.
- Siebert, Marie, John Muir School, 611 E. Walnut St., Santa Ana, Calif.
- Siehl, B. H., Hartwell School, Cincinnati, Ohio.
- Sigler, Lou I., Buchanan School, 620 Stocking Ave., Grand Rapids, Mich.

- Still, Ruth P., Trade School for Girls, 11th & Pine Sts., Philadelphia, Pa.  
 Silvia, J. Defray, Lincoln School, 319 W. Ortega, Santa Barbara, Calif.  
 Simmermon, T. C., Pleasant Ridge School, Cincinnati, Ohio.  
 Simmons, Myrtle T., Elementary & Jr. High School, 331 South 7th, Monmouth, Ill.  
 Simmons, William F., Grand Ave. School, Milwaukee, Wis.  
 Simperts, A. Adelaide, Public School No. 3, 1105 Madison St., Wilmington, Del.  
 Simpson, Chas. E., James Martin School, 3626 No. 19th St., Philadelphia, Pa.  
 Simpson, Francis M., School No. 19, Baltimore, Md.  
 Simpson, Genevieve, 3725 East Colfax Ave., Denver, Colo.  
 Sipson, Maud M., 69 So. Transit St., Lockport, N. Y.  
 Sisson, Fred M., Howland School, 1604 S. Spaulding Ave., Chicago, Ill.  
 Siviter, A. B., 6108 Walnut St., Pittsburgh, Pa.  
 Skillen Mildred, 1202 So. Millick St., Philadelphia, Pa.  
 Skinner, Clara, Jefferson School, 326 Cherry St., Grand Rapids, Mich.  
 Skowland, W. N., Lincoln School, 204 W. Irving St., Oshkosh, Wis.  
 Slater, Margaret K., Rock Spring School, 4228 Page Blvd., St. Louis, Mo.  
 Sloan, Isabelle P., Cooker School, 1514 Rebecca St., Sioux City, Iowa.  
 Smalley, Harry, J. J. McDonough School, 611 June St., Fall River, Mass.  
 Smith, Abraham, Public School 70, Manhattan, 213 E. 75th St., New York, N. Y.  
 Smith, C. Florence, Felton School, Cambridge, Mass.  
 Smith, Edith, Henry School, 154 Fitzhugh Ave., Grand Rapids, Mich.  
 Smith, Ella L., Garrett Heights, 3206 Guilford Ave., Baltimore, Md.  
 Smith, Elsie M., 5623 Florence Blvd., Omaha, Nebr.  
 Smith, Emma O., 400 Hill Crest Ave., Macon, Ga.  
 Smith, Fanny R., Goudy School, Fullerton Plaza Hotel, Chicago, Ill.  
 Smith, Florence S., Barker School, 15 Smith Ave., Methuen, Mass.  
 Smith, Fred E., Gregory School, Chicago, Ill.  
 Smith, George A., Mather School, Boston, Mass.  
 Smith, Herman F., Latona School, Seattle, Wash.  
 Smith, Mrs. I. M. C., Jefferson School, 2218 I. St., Sacramento, Calif.  
 Smith, Lena Martin, High School, Meade, Kans.  
 Smith, Le Roy, Thomas Buchanan Read School, Philadelphia, Pa.  
 Smith, Margaret H., 61st St. School, 3840 S. Grand Ave., Los Angeles, Calif.  
 Smith, Mrs. Margaret M., Maria Mitchell School, 1543 Downing St., Denver, Colo.  
 Smith, Mrs. Mary Y., Hudson St. School, 89½ Oak St., Binghamton, N. Y.  
 Smith, Minnie H., Washington School, 201 Center St., New Haven, Conn.  
 Smith, O. E., Supt. of Schools, 708 Clinton Ave., Indianapolis, Iowa.  
 Smith, Preston W., Fort Bragg, Calif.  
 Smith, V. M., 557 Oxford St., Worthington, Ohio.  
 Smith, W. Virgil, Highland Park School, 2412 N. 43d St., Seattle, Wash.  
 Smithyman, W. Lincoln, Cold Spring Ave. School, Cor. 20th St., Milwaukee, Wis.  
 Smoot, Lucy J., Norman School, 36th & Summit, Kansas City, Mo.  
 Smyser, W. L., 803 Graceland St., Des-planes, Ill.  
 Smyth, Elizabeth A., School No. 13, 608 E. Cedarcroft Rd., Baltimore, Md.  
 Snell, Harvey, Prairie Center School, Strathmore, Calif.  
 Snoddy, W. T., 1724 31st Ave., N., Birmingham, Ala.  
 Snook, Mrs., Blanche Mosier, Washington School, 1124 Bell Ave., Des Moines, Iowa.  
 Snow, Irving, Cedarville, Calif.  
 Snyder, Olive J., Staunton St. School, 230 E. Maine St., Piqua, Ohio.  
 Somerwill, Grace, 1st St. School, 30 Monroe St., Warren, Ohio.  
 Sorensen, R. R., Supt. of Schools, 273 Second St., Tracy, Minn.  
 Sowden, William H., Samuel Breck Public School, 5501 Wayne Ave., Philadelphia, Pa.  
 Spargo, John A., Ashland School, 450 Park Ave., East Orange, N. J.  
 Sparra, Annie, 517 Penelope St., Belton, Tex.  
 Spears, Mrs. Cola, W. F. Slaton School, 565 Washington St., Atlanta, Ga.  
 Speerbrecher, Henry, 27th Ave. School, 767 Mineral St., Milwaukee, Wis.  
 Speirs, T. E., Arleta School, 220 E. 53d St., Portland, Oregon.  
 Spencer, Cornelia J., Kennedy School, Portland Hotel, Portland, Oregon.  
 Spencer, Evelyn M., 414 Haig St., Ellwood City, Pa.  
 Spencer, Mrs. Hattie A., Lincoln School, P. O. Box 655, Imperial, Calif.  
 Spencer, P. R., Supt. of Schools, St. Cloud, Minn.  
 Spencer, Teresa F., Rochambeau School, 1455 Twelfth Ave., San Francisco, Calif.  
 Sperle, D. Henryetta, 75 So. Prospect St., Burlington, Vt.  
 Spoor, K. Gertrude, Garden School, 1137 W. Broad St., Stratford, Conn.  
 Sprague, Elizabeth, Rosedale School, E. 115th & Moulton Ave., Cleveland Heights, Ohio.  
 Springer, Isidore, 787 Lafayette Ave., Brooklyn, N. Y.  
 Spurgin, Lucy, 1416 S. Brook St., Louisville, Ky.  
 Squibb, F. W., Fifth Ave. Grade School, 2322 Jenny Lind Ave., McKeesport, Pa.  
 Staley, Raymond E., Beall High School, 82 Frost Ave., Frostburg, Md.  
 Stallings, Lila, 1017 Egmont St., Brunswick, Ga.  
 Stanley, G. A., Central School, Tacoma, Wash.  
 Stannard, Margaret, 29 Marshall St., Battle Creek, Mich.  
 Stanton, George A., Washington School, Seattle, Wash.  
 Stanton, Lottie, 309 South 8th St., Laramie, Wyo.  
 Stapleton, Mrs. Louise V., Dickinson School, 1669 Plainfield Ave., Grand Rapids, Mich.  
 Stearns, Oletha, Mission Acres School, 1524 Martel Ave., Los Angeles, Calif.  
 Steele, Julia M., Fourth St. School, 12 Franklin St., Ansonia, Conn.  
 Steele, Laura, Burnet School No. 5, 102 Lewis St., San Antonio, Tex.  
 Steele, R. R., Richmond School, 760 E. Taylor St., Portland, Oregon.  
 Stehman, J. H., Avondale School, 2616 N. Spaulding Ave., Chicago, Ill.  
 Stephens, Ada, Chicago Ave. School, 1328 W. Mound St., Columbus, Ohio.  
 Stephens, C. E., Emerson School, 5415 Page Ave., St. Louis, Mo.  
 Steptoe, Grace, Route 4, Lynchburg, Va.  
 Stevens, Eugene C., Clayton School, 11th Ave. & Columbine St., Denver, Colo.  
 Stevens, Nellie M., Sifton School, 335 14th St., Portland, Oregon.

- Stevens, Plowdon Jr., Public School 44, Bronx, 3332 Decatur Ave., New York, N. Y.
- Stevenson, Mrs. C. A., Nelson School, 150 Lake Shore Drive, Muskegon, Mich.
- Stevenson, Jessie, Sibley School, Grand Rapids, Mich.
- Stewart, Clara, Brett Memorial School, 23d & Cambria St., Cleveland, Ohio.
- Stewart, J. Daniel, Sumner School, 740 E. 3d, South, Salt Lake City, Utah.
- Stewart, H. H., 40 Rich Ave., Mt. Vernon, N. Y.
- Stewart, L. P., Carson School, Glenway Ave., Cincinnati, Ohio.
- Stiles, Gertrude, Burns School, 816 Poplar St., Erie, Pa.
- Stitely, Marshall, 1532 Linden Ave., Baltimore, Md.
- Stivers, Samuel A., Detroit St. School, 796 Frederick Ave., Milwaukee, Wis.
- Stockley, Callie L., Edwin T. Merrick School, 2318 Cadis St., New Orleans, La.
- Stoddard, A. J., Bronxville, N. Y.
- Stoll, Caroline F., Fairmount School, Fairmount, Mo.
- Stolz, Mrs. R. B., Parkside School, 729 Lyon St., San Francisco, Calif.
- Stone, Mrs. Genevieve L., Bremer School, Minneapolis, Minn.
- Stone, Grace, 1708 No. 11th St., Waco, Tex.
- Stone, Josephine, Lowell School, 2407 19th St., Bakersfield, Calif.
- Stone, Louise K., Longfellow School, Chicago, Ill.
- Storm, Eugene M., Lincoln School, Napa, Calif.
- Stott, Maud, 33 Crescent St., Franklin, Mass.
- Stout, I. M., Grammar School, Blythe, Calif.
- Strachan, Mary G., 4268 Warner Rd., Cleveland, Ohio.
- Strack, Caroline, Danforth School, 216 E. Routt, Pueblo, Colo.
- Strahan, Margaret, Lexington School, 5 Mt. Vernon Ave., Grand Rapids, Mich.
- Strauss, Bella, Public School 88, 300 Rivington St., New York, N. Y.
- Strauss, Ernestine, Madison Ave. School, Atlantic, N. J.
- Street, E. B., Supt. of Schools, Library Bldg., Independence, Mo.
- Stromberg, Martha, A. Lincoln School, No. 86, 2106 Eutaw Place, Baltimore, Md.
- Stuart, Mrs. Marjorie, Jefferson School, San Francisco, Calif., 2712 Garber St., Berkeley, Calif.
- Stubbs, Joseph I., West Grove, Chester County, Pa.
- Stueland, Louis A., Sheridan School, 246 So. Sherman St., Denver, Colo.
- Stull, Helene M., Laurel St. School, 601 Rexford Dr., Los Angeles, Calif.
- Stump, Boyd J., New Paris, Ind.
- Stuvland, A. L., Supt. of Schools, Tyler, Minn.
- Sullivan, Katharine C. V., Westall Grammar School, Maple St., Fall River, Mass.
- Sullivan, Violet M., Live Oak School, New Orleans, La.
- Summers, Anna N., West End School, 512 King St., Alexandria, Va.
- Sunderland, Henry, Consolidated Schools, Lancaster, Minn.
- Sussman, Millie, 338 East 67th St., New York, N. Y.
- Suter, Ethel, N. B. Cook School, Pensacola, Fla.
- Sutton, Gertrude K., Hamilton School, Minneapolis, Minn.
- Sutton, Henry F., Jr. High School, 638 S. Van Buren St., Green Bay, Wis.
- Swaim, Laura G., Supervisor of Schools, Maple Shade, N. J.
- Swann, Alicia, Crockett School, 806 N. Ange, Apt. 6, El Paso, Tex.
- Swanson, Ada, 612 Lincoln St., Holdrege, Nebr.
- Swanson, Mamie H., Hillman Development School, Los Angeles, Calif.
- Swaney, Linah, Bessemer School, Pueblo, Colo.
- Swasey, Marion H., 58 Maple St., New Bedford, Mass.
- Sweeney, Ellen C., Thomas Donaghy School, 68 Arnold St., New Bedford, Mass.
- Sweeney, Thomas H., Public School 6, Queens, 287 Elm St., L. I. City, N. Y.
- Sweet, Emily, S. D. Warren School, 22 Hammond St., Waltham, Mass.
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